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FINAL REPORT

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This document is intended primarily for:
System and School Administrators
Alberta Education Executive Team and Managers

And may be of interest to:
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EXECUTIVE SUMMARY

1. BACKGROUND

The current[1] ESL (English as a Second Language) student population in Alberta is estimated at 37,300. Based on Citizenship and Immigration Canada data, there are approximately 1,500 new arrivals to Alberta between the ages of 0 to18 each month[2]. The number of ESL students has been increasing by an average of 14% per year. New arrivals settle predominantly in Calgary (58% new arrivals) and in Edmonton (29% new arrivals), with the remainder scattered throughout the province. Funding for Alberta Education has established three codes, 301, 302 and 303. According to the 2005-2006 Funding Manual for School Authorities the following definitions are used:

301 – Foreign-born funded ESL students
303 – Canadian-born funded ESL students
302 – Non-funded ESL students[3]

2. PURPOSE AND SIGNIFICANCE OF THE STUDY

It is important to understand how best to support the academic achievement of ESL students. In October 2004 Howard Research & Management Consulting Inc. was contracted by Alberta Learning[4] to study the factors that influence and predict academic success of ESL students, and to assist the Ministry with decisions related to curriculum development, resource allocation, and support provision. Data collection was completed in September 2005.

The comprehensive nature of this study is unique in that it presents the state of affairs of K-12 ESL education in Alberta. Best practice information is drawn from principals and teachers at various grade levels and geographic locations across the province. Views of experts and other stakeholders and research evidence have been considered in light of longitudinal data on ESL student achievement. Finally, a synthesis of findings has culminated in identification of factors and predictors of academic achievement of ESL students. A set of recommendations is offered as a starting point for the development of an action plan for K-12 ESL in Alberta.

3. METHOD

Both qualitative and quantitative methodologies were used to conduct this study, including a comprehensive literature review. Eight case studies examined current practices related to funding, assessment, program delivery, completion of PATs (Provincial Achievement Tests) and DEs (Diploma Exams), influencers on social adjustment of ESL students, facilitators and barriers to implementing best practices,

[1] Based on September 2005 count.
[2] This estimate is based on 2003 IMM1000 data. An estimated 14% increase was applied to this rate. This includes primary migration patterns only.
[3] International students on study permit were not included in any analyses.
[4] Alberta Learning was split into Alberta Education and Alberta Advanced Education during this study.

early leaving, leadership, and recommendations for priority action. Semi-structured interviews were conducted with 47 stakeholder/experts, and a province-wide survey of principals and teachers was used to gather descriptive information on current practices.

The purpose of the province-wide school survey was to gather both descriptive information regarding the current state of affairs in schools across the province with respect to K-12 ESL student programming. In addition, the school survey was used in combination with data obtained from Alberta Education to analyze the relationships between school-level predictors and student achievement of success.

A staged random selection approach was used to select schools for participation in the K-12 ESL school survey. A total of 1,072 schools representing the four grade cohorts were asked to complete the teacher and principal surveys. Response rates ranged from 53% to 57% across the four cohorts. School-based data were then combined with data from Alberta Education to identify relationships between school-level predictors and ESL student achievement on Provincial Achievement Tests/Diploma Exams.

For descriptive purposes, analyses of school survey data consisted of cross-tabulations. For school-level predictive analyses, data collected at the school level were directly merged with data from Alberta Education and regression analyses were conducted on the combined data. For individual-level analyses, data provided by Alberta Education were also analyzed using a regression approach.

Limitations

There are several limitations with a study of this type.

- First, all relationships that are identified are co-relational in nature and not causal. It is important to emphasize that though some causal relationships are more plausible than others, it is important that all relationships be viewed within the context of the qualitative data collected as well as the literature.
- Second, the sample sizes associated with some outcome measures were less than ideal. As a result of the lower retention rates of ESL students in the school system and lower rates of completion on Provincial Achievement Tests/Diploma Exams (PAT/DEs), the effects associated with achievement levels should be interpreted with caution, particularly at the senior high level.
- Third, variability in the number of ESL students across schools resulted in inadequate sample sizes within schools to estimate regression parameters using hierarchical linear modeling. As a result, school-level data were merged to the individual outcome data (Information Systems data) using the school code as a merge variable. It should be noted that this approach tends to overestimate the predictive effects of the school context variables. Given these limitations it is important to examine the predictive results, particularly those involving school based predictors, in terms of trends across cohort groups or across similar predictor themes. It is also important to consider the size of a particular predictive effect in addition to statistical significance.
- The funding models have changed over the last years, from three year caps, to four year caps and more recently to a five year cap. It is not possible to account for these changes in the longitudinal predictive analyses that were

conducted. It is possible that these changes may have confounded some of the results obtained.

- There may be variability in how jurisdictions are interpreting the 302 funding code. It is uncertain if this is being used to identify international students, previously funded ESL students who are no longer funded or other being used in other circumstances.

4. KEY FINDINGS

K-12 ESL Student Population

On average, respondent schools reported that 17% of their school population was ESL--34% with 1 to 5 ESL students, 39% with 6 to 25 ESL students, and 26% with more than 25 ESL students[5]. The proportion of Canadian-born ESL students steadily decreases with grade level. Only in the K-3 category are more Canadian-born ESL students reported than foreign-born. Overall, 5% of ESL students are refugees.

Assessment of English Language Proficiency

Schools reported using over 60 different assessment instruments, the most common being the Developmental Reading Assessment test (K-6), the Woodcock Munoz (7-9), and the Secondary Level English Proficiency test (10-12). Stakeholders/experts expressed general dissatisfaction with existing tools. They emphasized the need for tools normed on Alberta students, and for consistent intake assessment to facilitate common placement practices. Experts emphasized the significant influence that proficiency in first language has on the ESL student's ability to learn English. Across all grade cohorts, 43% of schools reported collecting information about ESL students' first languages.

Leadership

Besides respect for the first language and heritage culture of ESL students, research indicates the importance of ensuring an environment for first language support. Experts and practitioners alike expressed that instructional leadership (knowledge of second language acquisition and instruction) and development of strategies that support teachers in their efforts to improve instructional capacity demonstrate good leadership practice.

Instructional Models

Research supports transitional programs (sheltered, pull-out, adjunct, inclusive) sustained for a period of five or more years. Research also indicates that full integration of ESL students into mainstream classes, if done too early, can be detrimental to achievement of ESL students (Thomas & Collier, 2002). Further, pull-out programs (several weeks to several months duration) are most beneficial to newcomer students

[5] It should be noted that only those schools with at least one ESL student were asked to participate in the survey. Seventeen percent (17%) is reflective of the participating sample and not intended to represent the number of ESL students in Alberta as a whole.

who have little or no English, for ESL students who are older than their grade level peers, or who are at risk of dropping out of school.

Case study data indicate that integration of ESL students into mainstream classes with pull-out support is the most common model of instruction in current use. Sheltered classrooms are the norm in large schools with large numbers of ESL students as well as in the Kanadier program[6] in a smaller elementary school in rural Alberta. Survey results indicate that sixty-four percent (64%) of schools reported using in-class models of instruction. Pull-out classes with school-based teachers (20%) was the second most commonly-reported model of instruction for ESL students. Experts' views differed on the merits of various models of instruction. Fully integrated and pull-out models were both recognized as valuable and important, but perspectives on the timing and duration of pull-out varied.

Pre-service and In-service Requirements

On average, 63% of schools reported that staff designated to instruct ESL students have some ESL training (possibly as little as one professional development session). Twenty-seven (27%) of ESL designated teachers have no ESL training. Only 14% of schools reported that ESL designated teachers had an ESL diploma, certificate or degree in ESL.

Reasons for ESL Students Leaving School Early

ESL students leave early primarily because of lack of time to complete high school, frustration, low self-esteem, and family responsibilities.

5. PREDICTORS OF ESL STUDENT ACHIEVEMENT

An overall description of the ESL student types and comparisons to non-ESL students are provided in Appendix A to establish how ESL students in Alberta fair in comparison to the non-ESL student population. In general, these tables indicate that non-ESL students tend to maintain enrolment in the Alberta Education system, are more likely to be moved forward with their age peers, are more likely to complete PAT/DEs, and achieve at higher levels than ESL students at most grade levels.

In the following sections, results focus on predictive relationships among the ESL student population. It is important to note that relative to non-ESL students, ESL students are, in general, at a disadvantage when it comes to success outcomes regardless of the individual and school characteristics described below.

Individual Level Predictors of Success

Overall the predictive results that focus on individual level variables (rather than school level contextual variables) indicate several key findings when viewed across the four success outcomes of: a) remaining within the Alberta Education system, b) moving forward in the system with age peers, c) PAT/DE completion rates, and d) PAT/DE achievement levels. The key findings are summarized in Table ES1 below.

[6] A fully segregated program for Mennonite students which focuses on math and English and offers bible study as well.

Table ES1. Synthesis of Individual Level Predictors among ESL Students

OUTCOMES → PREDICTORS	Remaining in Alberta System	Moving Forward with Age Peers	PAT/DE Completions	PAT/DE Achievement
Canadian born (in comparison to foreign born)	↓ (12)*	↓ (9, 12)	↓ (9, 12)	↓ (3, 6, 9, 12)
More years as 301 student	↑ (3, 9, 12)	↑ (12)		
More years as 302 student	↓ (9, 12)	↓ (9, 12)	↓ (9)	↓ (9)
More years as 303 student	↓ (9, 12)		↓ (9)	↓ (3, 6, 9)
Number of years former ESL funded (301 or 302) student has been in system as non funded	↓ (6, 9, 12)	↓ (12)	↑ (9, 12)	↑ (6, 9, 12)
Delay between entering the system and being identified as ESL	↓ (12)		↓ (9, 12)	↓ (9)
Later age at entry into Alberta system	↑ (12)	↑ (12)	↓ (12)	↑ (9M) ↓ (12E)
Later grade at entry in Alberta system	↑ (9, 12)	↑ (9, 12)	↓ (3, 12)	↑ (9M) ↓ (12E)
Females (in comparison to males				↑ (3, 6, 9E)
Probability of limited first language proficiency		↓ (9)	↓ (9)	↓ (3) ↑ (12E)
Probability of having special needs		↓ (9, 12)	↓ (3, 12)	↓ (6, 12)
Probability of requiring trauma counselling			↓ (12)	
Probability of lower English proficiency level				↓ (3, 6)
Probability of refugee status				↓ (9, 12)

Overall trends are described (grades where effects are stronger are identified). M=Math, E=English.
*The arrows indicate the direction of the effect and are interpreted from predictor to outcome. For example for the first cell entry, the effect is read: In comparison to foreign-born, Canadian born students are less likely (↓) to remain in the Alberta Education system in the grade 12 cohort.

Predictor: **ESL Student Type**

Key Findings

In comparison to foreign-born ESL students, Canadian-born ESL students are at a greater disadvantage when it comes to remaining within the Alberta Education system, completing PATs, and achievement on PATs. The differences between foreign- and Canadian-born students are greatest at the junior and senior high levels. In addition, the longer students are coded as Canadian-born ESL students (code 303) the greater the disadvantage grows. Similarly, the longer students are identified as non-funded ESL students (code 302), the more likely they are to be disadvantaged when it comes to remaining within the Alberta Education system, moving forward in the system with age peers, completing PATs, and achieving on PATs. This is particularly true at the junior high level. In contrast, the longer students are coded as foreign-born ESL students (code 301) the more likely they are to remain within the Alberta Education system and move forward in the system with their peers, particularly in the later grades.

Possible Explanation/Implication: While further research is required, these findings suggest that Canadian-born ESL students may be experiencing more chronic language deficiencies than foreign-born ESL students. While foreign-born students remain at a disadvantage in comparison to non-ESL students, their language deficiencies may be more acute upon entry into the system, but become less profound (in comparison to Canadian-born ESL students) as they progress through the system.

Predictor: **Termination of Funded Status**

Key Findings — The longer it has been since ESL students have had their funding terminated the less likely they are to remain within the Alberta Education system and move forward in the system with their age peers. However, there is also a positive relation between the length of time ESL students have had their funding terminated and the higher their level of PAT/DE achievement.

Possible Explanation/Implication: ESL students whose English proficiency is at a sufficiently high level before their funding is terminated have a greater likelihood of moving successfully through school with their age peers and achieving well on PAT/DEs. However, when the English proficiency level of an ESL student is not at an adequate level before funding is terminated, the student is more likely to be retained or drop out.

Predictor: **Delay in ESL Student Identification**

Key Findings — The longer the delay in identification of ESL status the less likely students will remain within the Alberta Education system, the less likely students will complete PATs and the lower the students' achievement levels. These effects are found largely at the junior and senior high levels.

Possible Explanation/Implication: These results indicate that early identification is important for the long-term retention of ESL students.

Predictor: **Age at Entry / Grade at Entry**

Key Findings — Students entering the system at an older age and/or are admitted to a more advanced grade are more likely to remain in the Alberta Education system and are more likely to move forward in the system with their age peers but less likely to complete their PAT/DEs than those entering at a younger age. When it comes to PAT/DE achievement levels, those entering at an older age and/or admitted to a more advanced grade level achieve higher levels in math, but lower levels in English than those entering at an earlier age and/or grade level.

Possible Explanation/Implication: Results suggest that older age students or students admitted in a more advanced grade are more likely to be placed with their age peers though they are less likely to have the English proficiency to complete PAT/DEs. Older students are likely entering the system with more advanced mathematics skills as a result of mathematics instruction in their first language.

Predictor: **Other ESL Student Characteristics**

Key Findings — Generally speaking, ESL students with a higher probability of having limited first language proficiency, special needs, lower English proficiency levels, or refugee status experience more deficits across one or more achievement outcomes (i.e., remaining in the school system, moving forward their age peers, completing PATs/DEs, achieving on PATs/DEs) and/or across one or more grade cohorts.

Possible Explanation/Implication: The results suggest that those students with limited first language proficiency, special needs, lower English proficiency levels, or having refugee status may require additional ESL instructional supports.

School Level Predictors of Improved Achievement

The predictive results that focus on variables within the school environment (e.g., instructional methods, school size) focused only on improved achievement over successive PAT examinations. Because baseline information does not exist for early elementary grades, contextual relationships could not be assessed at those grade levels. Also, due to a small sample size for the grade 12 cohort (fewer than 100), it was decided the results were too unstable to warrant discussion. The key findings are summarized in the Table ES2 below.

Table ES2. Synthesis of School Level Predictors

PREDICTORS	Improved Achievement
Larger school size	↑ (6, 9)*
Higher ESL staff qualifications, training and/or specialization	↑ (6, 9)
Supports	
Availability of interpreters/translators	↑ (6, 9)
Additional teaching and support staff	↑ (6, 9)
ESL resource materials (including first language)	↑ (6, 9)
Availability of Reception Centre	↑ (6)
ESL consultants and other professionals	↑ (6)
Tutor support	↑ (9)
ESL teams and team functioning	↑ (6, 9)
Class Organization (Instructional Model)	
Half-day self-contained	↓ (6)
In-class ESL support	↑ (9)
Pull-out	↑ (9 -E) ↓ (9 -M)
Student Grouping	
Group students by age	↑ (6, 9)
Group students by English language proficiency	↑ (6)
Group students by proficiency in their first language	↓ (6)
ESL Timetabling	
Unstructured timetabling	↓ (9 -E) ↑ (9 -M)
Semi-structured timetabling	↑ (9)
Structured timetabling	↑ (6) ↓ (9)
Instructional Methods	
Mentoring approaches	↑ (6)
Integrated language and content instruction	↑ (9)
Modification approaches	↑ (9)
Balanced Literacy	↓ (6) ↑ (9)
Realia[7] (Real Life)	↓ (6)
Language Experience	↓ (6, 9)
Phonemic Awareness	↓ (6, 9)
Diagnostic Assessment Depth and Quality	↑ (6, 9)
School Communication Support of ESL Students	↑ 9)

Overall trends are described (grades where effects are stronger are identified). M=Math, E=Englisn.
*The arrows indicate the direction of the effect and are interpreted from predictor to outcome. For example for the first cell entry, the effect is read: In comparison to smaller schools, larger schools have students that show a greater (↑) improvement in achievement than in grades 6 and 9.

[7] Descriptions of Realia, Balanced Literacy and other approaches are outlined in the Calgary Board of Education Benchmarks document.

Predictor: **School Size**

Key Findings — In comparison to those ESL students in schools with smaller student populations, ESL students in schools with larger student populations, at the elementary and junior high levels, demonstrate greater improvements in achievement.

Predictor: **Staff Qualifications, Training and/or Specialization**

Key Findings — Results indicate that ESL teachers with more training, credentials and specialization are more effective in supporting ESL student achievement.

Predictor: **ESL Supports**

Key Findings — The availability of interpreters/translators, additional teaching and support staff, and ESL resource materials, benefit ESL students at the later elementary and junior high levels. ESL students in later elementary grades also benefit from the availability of a Reception Centre, ESL consultants, and other professionals. Junior high ESL students benefit from the availability of tutor supports.

Predictor: **Class Organization (Instructional Model)**

Key Findings — A half-day self-contained (sheltered) class model may be the least appropriate for ESL students in later elementary grades. Students in schools using this model show deterioration in math achievement. For junior high students a pull-out, school-based model was related to improvement in English achievement but deterioration in math achievement. In-class support for ESL students in junior high, on the other hand, was not related to improvement in English achievement, but was positively related to improvement in math achievement.

Predictor: **Student Grouping**

Key Findings — Schools that group ESL students by age have students who show improved achievement levels in later elementary grades and junior high. At the later elementary grade level, grouping students by English language proficiency also appears to have beneficial effects on achievement. In addition, grouping students by proficiency in first language appears to be related to deterioration in achievement levels at the later elementary grade level.

Predictor: **Timetabling**

Key Findings — ESL students in later elementary grades may benefit most from a structured timetabling approach since a positive relation with achievement in math is indicated. At the junior high level, an unstructured timetabling approach appears to be related to improvements in math achievement but deterioration in English. In junior high, a semi-structured approach appears to be related to improvement in English achievement, while a structured timetabling approach appears to be related to deterioration in math achievement.

Predictor: **Instructional Methods**

Key Findings ESL students in later grades in elementary schools that use mentoring instructional approaches show improved achievement in math and/or English—as opposed to schools where Balanced Literacy, Language Experience, Phonemic Awareness, and/or Realia approaches are used[8]. At the junior high level, schools that use Balanced Literacy, Integrated Language, Content Instruction, and modification approaches (as opposed to Language Experience and Phonemic Awareness approaches) have ESL students who show improved achievement levels in math and/or English.

Predictor: **Diagnostic and Assessment Characteristics**

Key Findings Overall, the quality and depth of diagnostics and assessment applied to ESL students is predictive of improved achievement outcomes in both English and math across the different grade cohorts. In addition, the number of data elements collected to understand ESL students' current and historical demographic profile was predictive of improved academic achievement level in English in junior high.

Predictor: **School Communication Support of ESL Parents**

Key Findings The ability of schools to provide information to parents of ESL students using first language or simple English is predictive of improved English achievement of ESL students at the junior high level.

Implications

Results suggest that to enhance the achievement of ESL students, access to qualified and trained ESL teachers, and appropriate levels and types of support are required. In addition, achievement of ESL students may be enhanced if schools use thorough diagnostic and assessment processes and support communication with parents of ESL students.

With respect to models of instruction (e.g., sheltered, integrated), it appears that no one model of instruction supports optimal achievement of ESL students. ESL students would benefit most from integrated classroom models during the school day, supplemented with additional hours of sheltered instruction to increase English proficiency. Results appear to support grouping by age. A structured timetabling approach appears most appropriate for ESL students at the elementary grade level, a semi-structured timetabling approach for ESL students at the junior high level, and an unstructured timetabling approach for ESL students with higher levels of English proficiency.

Mentoring approaches appear to be effective at the elementary grade levels. Instructional methods that appear to be related to deterioration in achievement in either or both of math/English at the elementary level are those that tend to rely on less structured approaches (i.e., Balanced Literacy, Language Experience and Realia). At the junior high level, results indicate that Balanced Literacy, Integrated Language and Content Instruction, and modification approaches may be most effective. Language Experience, and Phonemic Awareness approaches may be least effective on improved achievement in English and/or math.

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[8] The Calgary Board of Education's English as a Second Language: English Language Proficiency Benchmarks (2005) provides a summary description of the instructional methods discussed in this report.

6. RECOMMENDATIONS

6.1 RECOMMENDATIONS OF STUDY PARTICIPANTS

Study participants were asked to identify recommendations to address the needs of ESL students. These included experts/stakeholders, case study participants, and school principals who participated in the province-wide survey. Some of their recommendations are also supported in the literature and by predictor variables and they include the following:

1. Appropriate assessment tests for ESL students including psychological tests
2. Formalized assessment processes for ESL students
3. Standards for teaching requirements for teachers of ESL students
4. Collaborative research agenda with universities
5. Standardized program guidelines for ESL including junior high
6. Equitable support for all ESL students (those integrated into mainstream classes as well as those in segregated programs such as the Kanadier program)
7. Development of support programs for parents and students to work on at home
8. Revised funding structure for ESL relative to student need
9. Increased funding support for ESL (hiring of trained teachers and assistants, psychological assessment of ESL students, full-time ESL designated teachers, teacher training/professional development)
10. Maintained support for ESL students after they leave segregated ESL programs
11. Creation of a research and development team within the Ministry of Alberta Education
12. Collaboration with universities to offer more ESL programs in teacher education programs
13. Support for a cross-ministerial response to address the needs of ESL students
14. Increased parent involvement/voice in schools
15. Support for information sharing across jurisdictions
16. Maintained communication between Reception Centres and schools
17. Development of assessment processes for ESL students with learning disabilities
18. Effort to reduce attrition of ESL students

6.2 Consultant Recommendations

Howard Research makes the following recommendations:

RECOMMENDATIONS FOR ALBERTA EDUCATION

Recommendation #1 – Re-examine the current funding structure for K-12 ESL.

Rationale:

Predictive analyses conducted in this study indicate that the longer it has been since funding for ESL students has been terminated, the less likely they are to remain in the Alberta Education school system and at grade level if they are still in the school system. ESL students do not complete Provincial Achievement Tests with the same frequency or level of success as their English-proficient peers. Data from case studies and

experts/stakeholders indicate that ESL students who enter the system at junior and senior high ages experience significant challenges to learning English and completing diploma requirements within the five-year window of additional funding support. Data from the predictive analyses also suggest that those students with limited first language proficiency, special needs, lower English proficiency levels, or having refugee status may require additional ESL instructional supports.

A more flexible approach needs to be developed to determine appropriate level of funding to match level of proficiency in English that also takes into account other influencing factors such as socioeconomic status, years of prior formal schooling, and proficiency in first language.

Note: Recommendation #1 is supported by Study Participants' Recommendations #6, #8 and #10.

Recommendation #2 – Develop a recommended list of diagnostic and assessment instruments appropriate for use with K-12 ESL students to improve consistency and standardization in assessing, interpreting and reporting test results.

Rationale:

Predictive analyses findings indicate that Schools that report using high quality English proficiency diagnostic and assessment tests, along with comprehensive tracking processes, have ESL students who demonstrate greater gains in academic achievement. A recommended list of diagnostic and assessment instruments would help to achieve accurate and consistent placement of ESL students across jurisdictions. To facilitate determination of the impact of various instructional strategies on achievement of ESL students, a core set of information needs to be collected uniformly over time—preferably electronically.

Data collected in this study indicate great variability with respect to tools and processes used to assess English proficiency of ESL students as well as in the type and depth of information collected on ESL students. A general gap in quality instruments normed on Alberta students is reported.

Note: Recommendation #2 is supported by Study Participants' Recommendations #1, #2, #15 and #17.

Recommendation #3 – Develop K-12 ESL proficiency standards and guidelines for instructional strategies articulated with the Alberta Program of Studies.

Rationale:

Predictive analyses findings from this study indicate that schools that report using structured methods of instruction for ESL students have ESL students who demonstrate greater gains in academic achievement. Few schools reported having comprehensive plans for ESL instruction. Case study schools, experts and stakeholders reported concern about lack of a province-wide curriculum for K-12 ESL. Junior high is seen as a particular gap.

Foundational and seminal work in ESL is underway in some school jurisdictions with respect to ESL instruction and benchmarking student progress. Alberta Education and school jurisdictions could build on this existing work to develop guidelines and suggested approaches and strategies for ESL instruction that are articulated across grade levels and linked to the Alberta Program of Studies. Resource support for development and implementation of the guidelines will be required at both provincial and jurisdictional levels.

Note: Recommendation #3 is supported by Study Participants' Recommendations #5. This recommendation is also supported by Alberta's Commission on Learning recommendation #52: *Create provincial proficiency standards for assessing ESL students, students who are not proficient in English, and French language upgrading students, and provide funding until students reach the standard.*

RECOMMENDATIONS FOR SCHOOL JURISDICTIONS

Recommendation #4 – Ensure that K-12 ESL students have sufficient support and time to learn English and subject matter content.

Rationale:

Previous research indicates that 5 to 7 years are required for ESL students to gain full proficiency in English. While conversational English can be learned fairly quickly, it takes much longer to learn cognitive skills. If a single model of instruction is used, an integrated model appears most supportive of ESL student achievement in English and math. Sheltered models appear inappropriate at the elementary level and may lead to deterioration in math. At the junior high level, pull-out models appear to lead to improvement in English but deterioration in math, while in-class support models appear to lead to improvement in math but deterioration in English.

Previous research also indicates that instruction in the ESL student's first language (L1) supports acquisition of the second language (L2). In order for a student whose first language is English to gain proficiency in a second language, 1.5 to 4.5 hours of instruction per week are required (doubling that amount if advanced proficiency is desired). ESL students in Alberta schools could benefit from instruction in their first language. However, introducing the range of first languages of ESL students into the school day would have significant impact on resources and timetabling. Elongating the school day to provide more time for students to learn both English and subject matter content would likely have similar impact. Therefore, other alternatives need to be explored such as classes for ESL students held during the summer months or weekends. Jurisdictions should also explore ways in which they could work more closely with community-based agencies and organizations to create formal and informal opportunities for ESL students to learn and maintain their first language in environments that support their interaction with age peers and adults beyond their own immediate families.

Note: Recommendations #4 is supported by Study Participants' Recommendations #6, #8 and #10.

Recommendation #5 – Provide more professional development opportunities for practicing teachers and teacher assistants.

Rationale:

Predictive analysis findings from this study indicate that a positive relationship exists between more highly qualified and trained staff and improvements in achievement in ESL students. Research also supports this finding. Currently, schools report that 64% of mainstream teachers who teach ESL students have no training in ESL. Only 14% of schools reported that ESL designated teachers have a diploma, certificate or degree in ESL.

Professional development programs for practicing teachers and teacher assistants need to be developed in collaboration with universities, colleges, and training institutes to develop a comprehensive and articulated in-service program that leads to certification in ESL (e.g., second language acquisition, cultural competence, diagnosis and assessment). Professional development opportunities need to be made affordable and accessible to practicing teachers and teacher assistants. Options for electronic delivery and self-study should be explored. Incentives to encourage teachers to engage in ESL professional development opportunities should be explored (e.g., bursaries).

Note: Recommendation #5 is supported by Study Participants' Recommendations #9 and #3.

RECOMMENDATIONS FOR UNIVERSITIES AND SCHOOL JURISDICTIONS

Recommendation #6 – Create more opportunities for inclusion of K-12 ESL-related courses in teacher education programs and increase placement opportunities for student teachers in schools with large numbers of ESL students.

Rationale:

Predictive analysis findings from this study indicate that a positive relationship exists between more highly qualified and trained staff and improvements in academic achievement by ESL students. Research also supports this finding. Data from case studies and experts/stakeholders indicate that pre-service teachers are limited in the number and breadth of ESL-related courses that can be included in their undergraduate programs. Further, data indicate that schools with large numbers of ESL students are reluctant to take on the responsibility of student teachers given the added burden on ESL teachers.

To address the shortage of teachers who are skilled and qualified in ESL, universities and school jurisdictions should engage in discussions with Alberta Education and Advanced Education and possibly other Ministries to examine the creation of appropriate programs and possibly additional placement opportunities for undergraduate students who are interested in pursuing programs in ESL. This would align with the province's strategy of supporting immigrants and immigration to Alberta.

Additionally, incentives may need to be developed for schools with large numbers of ESL students to accommodate student teachers and, with the university, derive mutual benefit from that involvement.

Note: Recommendation #6 is supported by Study Participants' Recommendations #3 and #12.

Recommendation #7 – Develop a research agenda that addresses priority questions and issues related to K-12 ESL in Alberta.

Rationale:

Data from this study indicate that Canadian-born ESL students are not achieving as well as foreign-born ESL students. This situation is untenable for Alberta and for Canada. Further research needs to be conducted to understand why Canadian-born ESL students are achieving at lower levels than their foreign-born counterparts, and why they are leaving the system earlier.

Currently, no schools report following ESL students who leave school early. Alberta-based research provides some insight into reasons for early leaving. This and other important questions need to be addressed and may form a research agenda that could also include, for example:

- Comparison of various instructional strategies across jurisdictions linked to achievement of ESL students;
- Development of diagnostic and assessment tools and processes normed on Alberta students;
- Identification of diagnostic and assessment tools and processes for ESL students with special needs; and
- Longitudinal tracking of ESL high school completions, post-secondary completion and employment levels.

Note: Recommendation #7 is supported by Study Participants' Recommendations #4 and #11.

RECOMMENDATIONS FOR EDUCATION AND ADVANCED EDUCATION

Recommendation #8 – Explore transition options for ESL students to complete high school requirements.

Rationale:

Many ESL students require an additional year(s) beyond the age of 20 to complete diploma requirements. Consideration should be given to creating a mechanism that supports continuous enrolment of ESL students in a high school or post-secondary setting to allow them time to complete high school and to avoid the current year-long wait ESL students experience as they transition from high school to post-secondary institutions.

Note: Recommendation #8 is supported by Study Participants' Recommendation #13.

INTRODUCTION

NOTE: The comprehensive nature of this study necessitated a two-part presentation: 1) Synthesis of Results and Recommendations which is the subject of this report, and 2) a set of K-12 ESL Study Appendices containing individual components of the study each as its own stand-alone report: Literature Review, Case Studies, Predictive Analysis, and Technical Report Data Tables (Descriptive Analysis). These are presented under a separate cover. As well, a set of Appendices contains other materials such as instruments used for data collection purposes.

RATIONALE FOR THE STUDY

Between October 2004 and September 2005 Howard Research & Management Consulting Inc. was contracted by Alberta Learning to conduct a needs assessment study to identify the current state of affairs with respect to K-12 English as a Second Language (ESL) in Alberta, Canada. The study was commissioned to improve understanding of the factors that influence and possibly predict the academic success of ESL students in order to assist the Ministry with decisions related to curriculum development, resource allocation, and support provision to ESL students. The value of the study lies in learning what optimal supports are required to maximize the educational achievements of ESL students.

The current ESL student population in Alberta is estimated at 37,300. Based on Citizenship and Immigration Canada data, there are approximately 1,500 new arrivals to Alberta between the ages of 0-18 each month[9]. New arrivals settle predominantly in Calgary (58% new arrivals) and in Edmonton (29% new arrivals), with the remainder scattered throughout the province (See Table 1a).

Table 1a. Top 20 Reported Destinations of New Immigrants (Ages 0-18)

Destination	Percentage
Calgary	57.82
Edmonton	28.82
Red Deer	1.29
Lethbridge	1.07
Medicine Hat	0.85
Fort McMurray	0.82
Brooks	0.51
Sherwood Park	0.45
Grande Prairie	0.42
Cochrane	0.34
St Albert	0.34
Canmore	0.32
Banff	0.30

[9] This estimate is based on 2003 IMM1000 data which indicated 1,320 new arrivals per month. An estimated 14% increase was applied to this rate. This includes primary migration patterns only.

Destination	Percentage
Okotoks	0.23
Fort Macleod	0.20
Wetaskiwin	0.18
Camrose	0.18
Airdrie	0.17
Lacombe	0.16

Many (49%) of these new arrivals have no or limited English proficiency. However, not all ESL students attending Alberta schools were born outside this country. Some were born in Canada. Some were born here in Alberta.

Since the 1998/99 school year in which 17,200 ESL students were registered in the Alberta education system, the number of ESL students has been increasing by an average of 14% per year. This growing population has significant implications for Alberta's education system and for the province overall. It is important to learn what influences and best supports the academic achievements of this group of students.

The current distribution of ESL students in Alberta schools by top 20 cities is presented in Table 1b[10]. The cities in this table are ordered by overall ESL student numbers.

Table 1b. Top 20 Locations of ESL Students 2003/04

City	% Overall (N=33,405)	% Canadian Born (code 303) (N=16,358)	% Non-funded (code 302) (N=888)	% Foreign-born (code 301) (N=16,158)
Calgary	56.1%	48.9%	35.2%	64.6%
Edmonton	18.1%	14.7%	12.7%	21.8%
Wabasca	2.6%	5.4%	0.0%	0.0%
Lethbridge	1.6%	2.3%	0.2%	0.9%
Strathmore	1.3%	2.6%	0.1%	0.0%
Fort McMurray	1.1%	1.2%	8.7%	0.6%
Taber	0.7%	1.3%	0.0%	0.2%
Gift Lake	0.6%	1.2%	0.0%	0.0%
Grande Prairie	0.6%	0.4%	0.2%	0.7%
Camrose	0.5%	1.1%	0.6%	0.0%
Red Deer	0.5%	0.2%	1.4%	0.8%
Chestemere	0.5%	0.2%	0.0%	0.8%
Brooks	0.5%	0.2%	1.1%	0.7%
Two Hills	0.4%	0.4%	0.0%	0.5%
Calling Lake	0.4%	0.9%	0.0%	0.0%
Peerless Lake	0.4%	0.8%	0.0%	0.0%
Cadotte Lake	0.4%	0.8%	0.0%	0.0%
La Crete	0.4%	0.6%	0.0%	0.2%
Trout Lake	0.4%	0.7%	0.0%	0.0%
High Prairie	0.3%	0.6%	0.1%	0.1%
Total	87.5%	84.6%	60.4%	91.9%

[10] Estimates are based on Public and Separate systems only.

Other relatively high proportions of non-funded students are found in the following locations:

Cleardale	4.5%
Canmore	2.9%
Jasper	2.8%
St. Albert	2.1%
Fort Chipewyan	1.8%
Sherwood Park	1.6%
Medicine Hat	1.5%
Bonnyville	1.4%
High River	1.2%
Rainier	1.2%
Airdrie	1.1%

METHODOLOGICAL APPROACH

Both qualitative and quantitative methodologies were used to design and conduct this study. A variety of methods were used including literature review, case study, stakeholder/expert interviews, province-wide survey school survey, and analysis of Alberta Education data. Each data collection strategy is described more fully below.

Literature Review

The purpose of the literature review was to examine the current literature (1995-2005) in five thematic areas. This included an examination of: 1) the predictors of K-12 ESL student achievement, 2) evidence regarding the effectiveness of various program delivery models, 3) evidence and best practice suggestions for various instructional methods, 4) a review of various dimensions of school leadership practices for creating an optimal ESL environment, and 5) a review of best practice recommendations in the area of ESL student diagnostics and assessment.

Relevant databases (ERIC, PsychInfo, LLBA, and Sociological Abstracts) and grey literature were searched. Reference lists of relevant documents were also cross-referenced for additional publications.

The literature review is included in its entirety in the Study Appendices.

Case Studies

The purpose of the case studies was to identify current program implementation practices with respect to:

a) Funding
b) Assessment (intake and ongoing and challenges)
c) Program delivery (i.e., instructional methods)

d) PATs (Provincial Achievement Tests)

e) Successes and challenges

f) Leadership

g) Best practices: academic achievement and social adjustment

h) Influencers on social adjustment of ESL students

i) Facilitators and barriers to implementing best practices

j) Influencers on early leavers

k) Recommendations for priority action

Eight schools were selected as case study sites. Schools included:

Table 2. Case Study Sites

School	School Jurisdiction	Location
St. Joseph High School	Edmonton Catholic School Board	Edmonton
Harry Ainlay High School	Edmonton Public School Board	Edmonton
Annie Gale Junior High School	Calgary Board of Education	Calgary
Sacred Heart Elementary	Calgary Roman Catholic Separate School District	Calgary
Sundre High School	Chinook's Edge Division	Sundre
Eastbrook Elementary	Grasslands Public Schools	Brooks
Vauxhall Elementary	Horizon School Division	Vauxhall
St. Theresa School	Northland School Division	Wabasca Demarais

Schools invited to participate were selected to provide a mix of urban/rural perspectives and practices with respect to ESL program implementation. At all sites the consultants spent at least a full day interviewing participants and observing classes in operation.

A variety of school personnel participated in semi-structured interviews (principal, ESL designate teacher(s), classroom teachers, support professionals (e.g., guidance counselors, liaisons), and teaching assistants. Approximately five individuals were interviewed at each school. As well, at two schools (both rural), a small group of parents was interviewed (individual and small group discussions).

Interview guides were distributed to school-based participants in advance of the interviews. (The interview guides are included in the Study Appendices.)

Interview data were thematized according to areas of inquiry listed above. Direct quotes from participants were used to capture variability in experiences and perspectives, where appropriate. Draft case study reports were presented to the schools for their review. Drafts were finalized following verification by school representative(s) (final verification for the Sacred Heart case study had not been received at the time of printing this report).

Stakeholder/Expert Interviews

The purpose of the stakeholder/expert interviews was to investigate and contribute information to the following areas of inquiry of the study:

a) Predictors of success

b) Best practices related to diagnosis and assessment of ESL learners, instructional strategies and resources, delivery methods, mentoring supports and community supports

c) Facilitators and barriers of implementing best practices

d) Best use of Ministry and AISI (Alberta Initiative for School Improvement) funds

e) Pre-service and in-service teaching requirements

f) Community supports

g) Recommendations

A qualitative approach was used for this component of the study. Semi-structured interviews (ranging from 1.5 to 3 hours) and focus group discussions (ranging from 45 minutes to 2 hours) were held with a total of 47 participants. Interviewees were initially identified by Alberta Education, and then through a snowball approach, interviewees themselves identified other appropriate people who they felt could contribute valuable information to the study. (A copy of the interview guides is included in the Study Appendices.)

Except for two telephone interviews, all interviews and focus group discussions were conducted in person. Interview questions were prepared and distributed to participants in advance of the interviews. Participants were invited to prepare responses to the questions if they so chose, but this was not required.

Interviewees represented large and small school jurisdictions (administrators, teachers, and consultant/specialists); universities; professional associations; immigrant serving agencies; adult education providers; advocacy agency and advisory groups. (A complete listing of participants is included in the Study Appendices).

Data were content analyzed and subjected to three levels of analysis. First level analysis identified meaning units within each interview, second level analysis identified meanings common within each group interviewed and category of investigation, and third level analysis resulted in the identification of meanings/findings common across participant groups. This method allowed the consultants to identify significant themes across the data sets and arrive at conclusions and insights to create a comprehensive assessment of perspectives. Frequency counts on perspectives were not conducted.

Province-wide School Survey

The purpose of the province-wide school survey was to gather both descriptive information regarding the current state of affairs in schools across the province with respect to K-12 ESL student programming. In addition, the School Survey was used in combination with data obtained from Alberta Education to analyze the relationships between school level predictors and K-12 ESL student achievement of success.

Selection Approach

A staged random selection approach was used to select schools for participation in the ESL School Survey. A visual representation of the school selection process is represented in Figure 1. In selecting schools the following selection criteria were used:

Criterion 1: In 2003/2004 there were 2,122 schools with registered students in Kindergarten to grade 12. A joint decision between the researchers and representatives of Alberta Education was made to restrict the study to those in the public or separate jurisdictions. Over 81% (1,725) of Alberta schools met this criterion.

Criterion 2: The second criterion for inclusion into this study was the presence of at least one ESL student in the school in the 2003/04. Sixty-eight percent (68%) of the schools within public or separate jurisdictions met this criterion.

Criterion 3: The third criterion involved identifying grade cohorts that existed within each of the above identified schools. The four grade cohorts included: grades 10-12, grades 7-9, grades 4-6 and grades K-3. As part of criterion 3, schools were selected if they had at least one ESL student represented in grades in which Provincial Achievement Exams or Diploma Exams are written (i.e., grades 3, 6, 9 and 12).

Criterion 4: The fourth criterion introduced the staged approach to random selection. Given that there are fewer schools representing later grade cohorts, the selection process was applied in descending order of grade cohort level. As there were only 211 schools offering grades 10-12, all were selected to respond to the grade 10-12 version of the School Survey. To avoid a situation where principals were asked to respond to more than one survey, the schools selected as part of the 10-12 cohort, were eliminated from the random selection process in the selection of subsequent cohorts. This same process was followed for each subsequent grade cohort. Using this process, 300 schools each were selected to represent the remaining grade cohorts.

Criterion 5: The final criterion was applied after the surveys were distributed. After distribution of the surveys it was discovered that there were principals that represented more than one school. Principals that that received surveys represented three or more schools were contacted by phone and asked to complete one School Survey (or maximum of two) among those they were sent. These schools were randomly selected by the researchers.

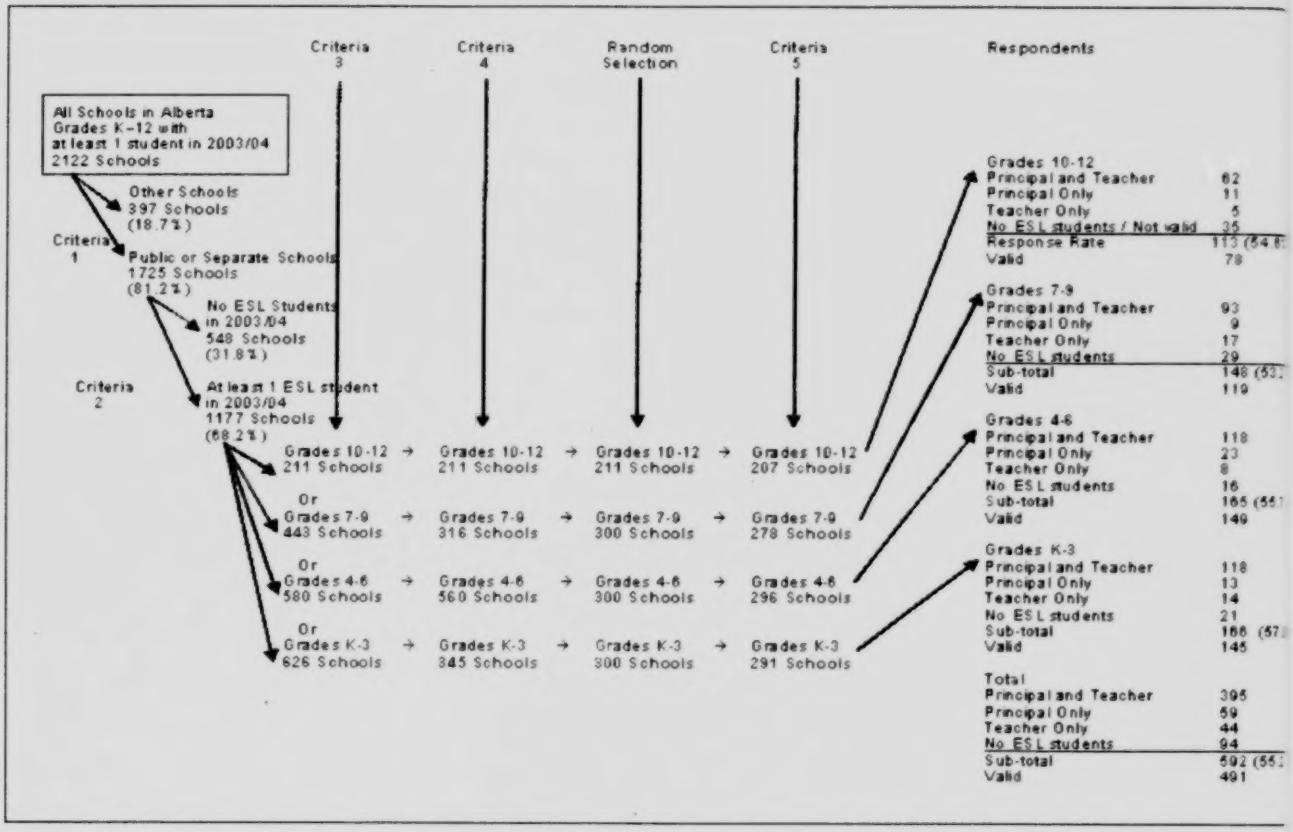

Figure 1. School Selection and Response Pathway

Administration Procedure

Surveys were mailed February 14, 2005 and were returned by 403 schools by April 18, 2005 Reminders were sent to jurisdictional representatives with schools that had less than a 75% response rate and an additional 189 schools responded by May 15, 2005.

Survey Responses

A total of 1,072 schools representing the four grade cohorts were asked to complete the Teacher and Principal Surveys. All surveys were subject to validation process. Survey responses that appeared to relate to the requested grade cohort were classified level 1 data and used in both descriptive and predictive analyses. Survey responses that appeared to relate to ESL students across multiple grade cohorts were classified level 2 data and were represented in the descriptive analyses only (See Figure 1).

In the grade 10 -12 cohort, 113 of 207 (representing a 55% response rate) schools returned surveys and of these 78 had data pertaining to ESL students.

In the grade 7-9 cohort, 148 of 278 (representing a 53% response rate) schools returned surveys and of these 119 had data pertaining to ESL students.

In the grade 4-6 cohort, 165 of 296 (representing a 56% response rate) schools returned surveys and of these 149 had data pertaining to ESL students.

In the grade K -3 cohort, 166 of 291 (representing a 57% response rate) schools returned surveys and of these 145 had data pertaining to ESL students.

Analysis

The purpose of the province-wide school survey was to gather descriptive information regarding the current state of affairs in schools across the province with respect to ESL student programming. In addition, the school survey was used in combination with data obtained from Alberta Education to analyze the relationships between school-level predictors and ESL student achievement of success.

A staged random selection approach was used to select schools for participation in the ESL school survey. A total of 1,072 schools representing the four grade cohorts were asked to complete the teacher and principal surveys. Response rates ranged from 53% to 57% across the four cohorts. School-based data were then combined with data from Alberta Education to identify relationships between school-level predictors and ESL student achievement on Provincial Achievement Tests/Diploma Exams.

For descriptive purposes, analyses of school survey data consisted of simple cross-tabulations. For school-level predictive analyses, data collected at the school level were directly merged with data from Alberta Education and simple regression analyses were conducted on the combined data. For individual-level analyses, data provided by Alberta Education were also analyzed using a simple regression approach.

Limitations

There are several limitations with a study of this type.

- First, all relationships that are identified are co-relational in nature and not causal. It is important to emphasize that though some causal relationships are more plausible than others, it is important that all relationships be viewed within the context of the qualitative data collected as well as the literature.
- Second, the sample sizes associated with some outcome measures were less than ideal. As a result of the lower retention rates of ESL students in the school system and lower rates of completion on Provincial Achievement Tests/Diploma Exams (PAT/DEs), the effects associated with achievement levels should be interpreted with caution, particularly at the senior high level.
- Third, variability in the number of ESL students across schools resulted in inadequate sample sizes within schools to estimate regression parameters using hierarchical linear modeling. As a result, school-level data were merged to the individual outcome data (Information Systems data) using the school code as a merge variable. It should be noted that this approach tends to overestimate the predictive effects of the school context variables. Given these limitations it is important to examine the predictive results, particularly those involving school based predictors, in terms of trends across cohort groups or across similar predictor themes. It is also important to consider the size of a particular predictive effect in addition to statistical significance.
- The funding models have changed over the last years, from three year caps, to four year caps and more recently to a five year cap. It is not possible to account for these changes in the longitudinal predictive analyses that were conducted. It is possible that these changes may have confounded some of the results obtained.
- There may be variability in how jurisdictions are interpreting the 302 funding code. It is uncertain if this is being used to identify international students, previously funded ESL students who are no longer funded or other being used in other circumstances.

PRESENTATION OF RESULTS

This report is organized into three major sections:

A. ESL Processes and Practices
B. Predictors of ESL Student Outcomes
C. Recommendations

Within sections, study findings are reported according to the following key areas of inquiry:

A1. Description of ESL Students in Alberta Schools
A2. Assessment of English Language Proficiency
A3. Information Tracking
A4. Leadership Processes

A5. Instructional Processes/Models
A6. Pre-service and In-service Requirements
A7. Reasons for Early Leaving

B1. Literature: Predictors of ESL Student Success
B2. Stakeholders/Experts: Predictors of ESL Student Success
B3. Case Studies: Predictors of ESL Student Success
B4. System and Province-wide School Survey Predictive Analysis

A. ESL PROCESSES AND PRACTICES

The following results section is based on data collected through the literature review (1995-2005), interviews with stakeholder/experts, case studies in 8 Alberta schools, and a province-wide survey of Alberta schools. A predictive analysis was conducted using Alberta Education system data and the province-wide school survey data. The predictive analysis is contained in section B of this report.

NOTE 1: The majority of tables presented in this section are taken from the descriptive analysis contained in the Technical Report located in the ESL Study Appendices. For example Table 2.0 below is based on Table P1A in the Technical Report. "P" stands for principal survey and "T" represents teacher survey data.

NOTE: 2: In many of the tables the total percentage does not exactly equal 100%. This is due to rounding error.

A1. DESCRIPTION OF ESL STUDENTS IN ALBERTA SCHOOLS

As provided by Alberta Education data, in 2004/2005 there were 37,261 ESL students in Alberta across 2,122 schools. In this study, a total of 475 schools[11] from 51 Alberta school jurisdictions responded to the school surveys distributed during the 2004/2005 school year.

Table 3. School and ESL Student Representation (2004/2005)

2004 / 2005 School Year	Alberta Education School System	Public / Separate Systems	Represented in Study
Number of Schools	2,122	1,725	475
Number of Students	37,261	35,195	11,792

Proportion of ESL Students in Respondent Schools

On average, respondent schools reported that 17% of their school population was ESL (See Table 6). School size varied from very small (1-10 students) to very large (more than 800 students). The proportion of ESL students in a given school also varied. For example, schools with between 51 and 100 students reported from 1-5 ESL students to 26 or more ESL students.

[11] Surveys were distributed only to public and separate school jurisdictions

Table 4. Proportion of ESL Students in Schools

School Population by School Size	ESL Student Population							
	1-5 ESL Students		6-25 ESL Students		26 or more ESL Students		Subtotal	
	N	%	N	%	N	%	N	%
1 to 10 Students	9	6.0	8	4.8	0	0.0	17	3.9
11 to 50 Students	9	6.0	12	7.2	2	1.7	23	5.3
51 to 100 Students	21	13.9	17	10.2	6	5.2	44	10.2
101 to 200 Students	47	31.1	36	21.6	32	27.8	115	26.6
201 to 400 Students	40	26.5	51	30.5	37	32.2	128	29.6
401 to 800 Students	21	13.9	36	21.6	25	21.7	82	18.9
801 or More Students	4	2.6	7	4.2	13	11.3	24	5.5

Thirty-four percent (34%) of schools reported having 1 to 5 ESL students, 39% of schools had 6 to 25 ESL students, and 26% of schools reported more than 25 ESL students in their schools.

Table 5. Proportion of Schools by Size of ESL Student Population

(Table P2)

Number of Schools by ESL Student Population		
ESL Student Population	N	%
1-5 ESL Students	164	34.6
6-25 ESL Students	185	39.0
26 or more ESL Students	125	26.4
Total	474	100.0

High schools reported the lowest proportion of ESL students per student population.

Table 6. Proportion of ESL Students in Overall School Population

Proportion of School Population that is ESL	ESL Student Population						Group Total	
	1-5 ESL Students		6-25 ESL Students		26 or more ESL Students			
Grade Level	N	%	N	%	N	%	N	%
Kindergarten to Grade 3	43	4.0	53	16.0	44	25.0	140	16.0
Grade 4 to Grade 6	45	7.0	56	12.0	29	53.0	130	20.0
Grade 7 to Grade 9	34	22.0	45	22.0	24	19.0	103	21.0
Grade 10 to Grade 12	25	2.0	18	7.0	20	17.0	63	7.0
Multiple Grade Categories	17	1.0	13	18.0	8	28.0	38	13.0
Total	164	7.0	185	16.0	125	30.0	474	17.0

ESL Student Population by Funding Code

ESL students were identified as one of three categories: foreign-born students (code 301), non-funded ESL students (code 302), and Canadian-born ESL students (code 303). The largest proportion of ESL students (55%) in this study was reported as foreign-born (code 301).

As Table 7 indicates, the proportion of Canadian-born ESL students steadily decreases with grade level. Only in the K-3 category were more Canadian-born ESL students reported than foreign-born.

Table 7. Proportion of Canadian-born and Foreign-born in Alberta Schools

ESL Student Population by Grade Level and ESL Code		
Grade Level		Group Total
		%
Kindergarten to Grade 3	Q3a: Percent of ESL students foreign-born (code 301)	46.75
	Q3c: Percent of ESL students Canadian-born (code 303)	50.62
Grade 4 to Grade 6	Q3a: Percent of ESL students foreign-born (code 301)	53.48
	Q3c: Percent of ESL students Canadian-born (code 303)	40.39
Grade 7 to Grade 9	Q3a: Percent of ESL students foreign-born (code 301)	57.58
	Q3c: Percent of ESL students Canadian-born (code 303)	36.32
Grade 10 to Grade 12	Q3a: Percent of ESL students foreign-born (code 301)	75.57
	Q3c: Percent of ESL students Canadian-born (code 303)	9.74
Subtotal	Q3a: Percent of ESL students foreign-born (code 301)	55.75
	Q3b: Percent of ESL students non-funded (code 302)	6.19
	Q3c: Percent of ESL students Canadian-born (code 303)	37.88

Overall, 5% of ESL students in this study were reported to be refugees. Approximately twenty-percent (20%) of schools reported having refugee students. Fewer refugee students were reported in the K-3 category than in older grade categories.

Table 8. Percentage of Refugee Students as a Function of ESL Population

Proportion of Refugee ESL Students								
Number of Refugee Students	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Subtotal	
	N	%	N	%	N	%	N	%
No Refugee Students	107	94.7	93	80.9	42	55.3	242	79.6
1 to 2 Refugee Students	5	4.4	10	8.7	15	19.7	30	9.9
3 to 5 Refugee Students	1	0.9	7	6.1	4	5.3	12	3.9
6 to 10 Refugee Students	0	0.0	3	2.6	8	10.5	11	3.6
10 or more Refugee Students	0	0.0	2	1.7	7	9.2	9	3.0

Table 9. Percentage of ESL Students in Alberta Schools Who are Refugees

Proportion of Refugees in ESL Student Population		
Grade Level	Number of Schools	Percentage Refugees
	N	%
Kindergarten to Grade 3	140	3%
Grade 4 to Grade 6	130	5%
Grade 7 to Grade 9	103	3%
Grade 10 to Grade 12	63	13%
Multiple Grade Categories	38	6%
Average	474	5%

A2. ASSESSMENT OF ENGLISH LANGUAGE PROFICIENCY

Literature: Assessment of English Language Proficiency

Assessment of English language proficiency is an important benchmark for educational planning for ESL students. Trained assessors and consistent assessment practices across settings is key. Assessment of vocabulary recall, conversational output, oral reading, and written language ability should be assessed. Multiple measures and authentic assessment are recommended to provide a realistic picture of a student's proficiency in English (L2).

Hargett (1998) provided a description of several of the more commonly-used assessment instruments available. Some of these instruments included Language Assessment Scales, Oral (LAS-O); Language Assessment Scales, Reading and Writing; Woodcock-Munoz Language Survey; IDEA Oral Language Proficiency Tests (IPT); and Secondary Level English Proficiency (SLEP) Test. Unfortunately, little information is available on a critical review of these instruments. Most were identified as applicable to students in the USA.

Stakeholders/Experts: Assessment of English Language Proficiency

Assessment of proficiency in English is critical to appropriate placement of ESL students. Stakeholders/experts cautioned that proficiency in oral language (English) can mask comprehension so that while a student's conversational English may appear to allow the student to function socially quite well with his/her age peers, the student's level of cognitive understanding may be at a much lower level. Therefore, assessment of both oral and cognitive proficiency in English is important.

Assessment of oral and cognitive proficiency typically involves students reading English passages followed by oral question/answer sessions conducted in English. Students are also typically asked to describe the composition of their family unit, how and why they came to Canada, and schooling background in their home country.

Stakeholders/experts generally agreed that there is a lack of good assessment tools/instruments available that are normed for ESL students in Alberta. One of the confounding factors that may be influencing current assessment practices in Alberta schools

is the inconsistent interpretation and application of the five levels describing English proficiency as set out by the Ministry (Senior High English as a Second Language Program of Studies).

Best assessment practices would be reflected by:

- Culturally appropriate, evidence-based assessment tools and instruments—particularly suited to distinguishing cognitive from oral proficiency and language from learning problems
- Qualified and skilled assessors
- Consistent assessment processes including consistent methods used to interpret results

Other best practice strategies for assessment identified by stakeholders/experts included:

- holistic and authentic assessments
- availability of psychological assessment in cases where students may suffer post-traumatic stress
- cultural liaisons who can familiarize the family with the school system and how it functions

Case Studies: Assessment of English Language Proficiency

Across the eight case study schools, most assessment occurred at the school level without jurisdiction involvement--the exception being the formal Reception Centres that exist in the two large urban jurisdictions (Calgary Public and Calgary Catholic). In these latter instances assessment of proficiency in English (L2) at intake is standardized and includes reading, writing, oral and listening as well as numeracy assessment. Interpreters are often used in the assessment process. For the Calgary Catholic system district-developed rubrics called Student Development Profiles form the basis of intake assessment (as well as the Woodcock Munoz). A variety of tools were reported by Calgary Public and these were under review at the time of this study.

Even in the two jurisdictions where formal Reception Centres exist, intake assessment also occurs at the school level. This was referred to as "authentic assessment" and is typically conducted by teachers. For example, at the large urban junior high school visited in Calgary Public, the Diagnostic Reading Assessment and Gates-MacGinitie tests were commonly used. Assessment from school-based testing may supersede recommendations made by the jurisdiction with respect to placement of new ESL students. Where ESL students are suspected of having special needs and/or psychological problems, psychologists (provided by the jurisdiction) visit the school and assess the student in the school. These assessments usually occurred after a student had been placed in the school for a period of time after the classroom teacher had confirmed the need for further testing. Case study schools emphasized that it was often difficult to identify ESL students who had special needs when they were initially placed within the school.

In the schools where Reception Centres did not exist, a teacher designate at the school (often identified as a "Special Education" teacher or "Counselor") or sometimes the classroom teacher was generally responsible for administering intake assessment tests. In six of the eight schools visited, district-developed rubrics or registration forms were used in the assessment process. Writing samples were generally collected at least twice during the

course of the school year. Ongoing (authentic assessment) was regarded with equal or more importance than (standardized) test results. In one case the school reported that diploma exams served as assessment tools—a practice that was not regarded as optimal.

All case study schools visited (those with formal Reception Centres as well as those without) reported that school-based assessment tools/instruments (e.g., Student Development Profile, CBE Benchmarks) were used to assess students when they arrived at the school. In the junior and senior high schools visited, feeder schools provided information about where they thought ESL students should be placed and this advice was generally followed.

The following table indicates some of the more common published tools reported in use at intake and throughout the year:

Table 10. Assessment Tools Used in Case Study Schools

Level	Initial Assessment	Ongoing Assessment
Kindergarten	Brigance Diagnostic Inventory of Early Development.	
Grade 1	Dolche Word Activity Sheers	
Elementary	Stanford Diagnostic Reading Test Woodcock-Muñoz Language Survey (WMLS) Woodcock-Johnson Reading Mastery PPVT (*Peabody Picture Vocabulary Test)* CTBS (*Canadian Test of Basic Skills)* Morrison/McCall Spelling Scale Bergam standards Gates-MacGinitie Reading Tests Canadian Achievement Test Scholastic Reading Counts Program San Diego Quick Assessment Test Diagnostic Reading Exam	Stanford Diagnostic Reading Test Diagnostic Reading Program McCall Crabbs Standard Test Lessons in Reading New Practice Readers Woodcock Johnson Reading Mastery Key Math Testing Gates-MacGinitie Reading Tests
Secondary	Woodcock-Muñoz Language Survey (WMLS) Diagnostic Reading Assessment SLEP (*Secondary Level English Proficiency)*	Woodcock Johnson Reading Mastery Woodcock-Muñoz Language Survey (WMLS) Diagnostic Reading Assessment Kaufman Test of Educational Achievement SLEP (*Secondary Level English Proficiency)* Gates-MacGinitie Reading Tests

In three of the schools visited (two urban, one rural) family liaisons were used to provide support during the assessment process. The liaisons typically provided background information about the family to the receiving school and teacher.

It should be noted that in the northern Alberta case study (an elementary school comprised predominantly of Aboriginal students), assessment and diagnostic instruments were considered culturally inappropriate. Many of the students in this case study were of Cree heritage and spoke little English upon entering grade one.

School Survey: Assessment of English Language Proficiency

Schools were asked to indicate what diagnostic instruments were used to assess ESL student English proficiency. In all, some 64 different instruments were reported. The most commonly-reported diagnostic tool used at the K-6 level was the Diagnostic Reading Assessment (DRA), at the 7-9 level the Woodcock Munoz, and at the 10-12 level the Secondary Level English Proficiency (SLEP).

Overall, 40% of all schools reported they used "other" instruments or diagnostic tools not specified in the survey.

Table 11. English Language Proficiency Assessment Tools

Diagnostic Instruments	Grade Level					Group Total
	Kindergarten to Grade 3	Grade 4 to Grade 6	Grade 7 to Grade 9	Grade 10 to Grade 12	Multiple Grade Categories	
	%	%	%	%	%	%
ESL Student Vocabulary Checklist	25.4	25.7	24.1	18.9	46.2	25.7
Picture Vocabulary	32.8	22.0	24.1	9.4	34.6	24.9
DRA (Grade 1-3)	45.1	26.6	9.2	00.0	7.7	23.7
Woodcock Munoz	26.2	18.3	28.7	15.1	19.2	22.7
Reading Assessment Benchmark Guide	26.2	18.3	25.3	9.4	11.5	20.7
Written Assessment Benchmark Guide	18.9	20.2	24.1	7.5	7.7	18.1
DRA (Grade 4-8)	12.3	36.7	6.9	00.0	11.5	16.1
Oral Assessment Benchmark Guide	17.2	13.8	21.8	9.4	11.5	15.9
Observational Survey (Clay, 1993)	18.0	18.3	8.0	00.0	3.8	12.6
Listening Assessment Benchmark Guide	13.9	11.0	16.1	5.7	7.7	12.1
TONI-3 Nonverbal Assessment	4.9	7.3	4.6	7.5	7.7	6.0
SLEP	2.5	1.8	6.9	20.8	3.8	5.8

Schools were also asked if they assessed ESL students' language skills (listening, speaking, reading, and writing). Ninety-one percent (91%) of schools reported they assess reading skills, 88% percent reported that they assess writing skills, 76% of schools assess speaking skills, and 67% assess listening skills (see Tables 12).

Table 12. Assessment of English Language Skills

Total	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Listening (Aural) Language Skills Assessed								
Yes	68	54.40	99	65.13	94	84.68	261	67.27
No	34	27.20	34	22.37	12	10.81	80	20.62
Don't Know	23	18.40	19	12.50	5	4.50	47	12.11
Speaking (Oral) Language Skills Assessed								
Yes	77	61.60	118	77.60	101	91.00	296	76.30
No	27	21.60	21	13.80	5	4.50	53	13.70
Don't Know	21	16.80	13	8.60	5	4.50	39	10.10
Reading Skills Assessed								
Yes	105	85.40	137	90.10	109	98.20	351	90.90
No	6	4.90	7	4.60	0	0.00	13	3.40
Don't Know	12	9.80	8	5.30	2	1.80	22	5.70
Total	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Writing Skills Assessed								
Yes	101	80.80	135	88.80	107	96.40	343	88.40
No	10	8.00	9	5.90	2	1.80	21	5.40
Don't Know	14	11.20	8	5.30	2	1.80	24	6.20

When asked about which benchmarks schools used to assess student language skills the Calgary Board of Education (CBE) was the most commonly reported benchmark, followed by benchmarks associated with the three other large school jurisdictions in Alberta (Calgary Separate School District, Edmonton Public Schools, and Edmonton Catholic Schools). A full description can be found in the Technical Report (Tables T17D-A, T17E-A, T17F-A, & T17G-A).

Summary

Variability exists in the number and type of assessment instruments used by case study schools both for intake and for continuous assessment purposes. Across case study sites, assessment of ESL students by classroom teachers is common and assessment tools are often teacher-made and their results are used to supplement placement recommendations made by the Reception Centres. Nevertheless, schools were grateful to have the services of the Reception Centres given the time required to conduct intake assessments. However, schools regarded ongoing assessment of the student in the classroom/school (authentic assessment) as critical. While district-developed rubrics have been developed in two large jurisdictions, they were reported to be in early stages of implementation for intake and continuous assessment purposes.

Stakeholders/experts expressed general dissatisfaction with existing assessment tools and called for Alberta-normed tools to be developed. The need for consistency in intake assessment was emphasized to facilitate common placement practices.

Case study sites reflect much of what is recommended in the literature: assessment of proficiency in oral and written English, and to a lesser extent conversational, and vocabulary recall. Ongoing assessment in the classroom is commonly undertaken to provide a broad-based picture of an ESL student's proficiency in English.

A3. INFORMATION TRACKING

Literature: Information Tracking

Research indicated that it is important to track information reflective of the predictors of academic achievement of ESL students, namely:

Most important factors:
- Proficiency in L1 (first language)
- Proficiency in L2 (second language)
- Past performance in L2
- Amount of formal schooling prior to ESL instruction

Also important factors:
- Amount of ESL instruction time (since literature indicates that 2 years are required for interpersonal communication skills and 5 to 7 years to develop academic proficiency)
- Parental involvement
- Age at time of arrival
- Length of residence in Canada
- Individual differences (motivation, attitude)
- Socio-economic status

Also relevant factors:
- Teacher credentials
- Resource investment

Other information that should be tracked includes:
- Length of time in type of program (e.g., sheltered, pull-out, adjunct, integrated)
- Type of instructional model

Stakeholders/Experts: Information Tracking

Essential information about ESL students that is required to assess progress over time and to attempt correlation of the type of intervention (program delivery) with student achievement includes:

- Reason for entering Canada (e.g., refugee)
- Time in Canada
- L1 proficiency at entry
- L2 proficiency at entry

- L1 proficiency of parents at entry
- L2 proficiency of parents at entry
- Type of program delivery model student has been involved in

Case Studies: Information Tracking

Case study schools indicated that they have most of the information identified above, albeit in varying formats and comprehensiveness. The type of program delivery varies across jurisdictions. School-based research on linking either readiness or performance at entry or type of intervention with student achievement was reported to some extent at two sites (one large high school, one small elementary).

School Survey: Information Tracking

Respondent schools were asked about the type of data they collect on ESL students and how the data is stored. In general, the greater the number of ESL students in a school, the more likely the school was to report collecting ESL student information. The most common data elements collected were:

Table 13. Proportion of Schools That Track ESL Information

Data Elements Collected on ESL Students	Percent of Schools
First language spoken in student's home	84%
Educational experiences of students prior to entry into Alberta schools	71%
Date of arrival in Canada	70%
English language proficiency on entry (L2)	67%
First language proficiency (L1)	43%

Further detail is provided in the following tables and amplified across grade levels in the Technical Report located in the ESL Study Appendices.

Table 14. Information Tracking

Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
School Collects First Language Spoken at Home Data								
Electronic and Paper	28	18.7	32	19.3	40	34.8	100	23.2
Electronic Only	39	26.0	53	31.9	38	33.0	130	30.2
Paper Only	53	35.3	52	31.3	27	23.5	132	30.6
Do Not Collect	30	20.0	29	17.5	10	8.7	69	16.0
School Collects First Language Proficiency Level Data								
Electronic and Paper	4	2.7	17	10.2	26	22.6	47	10.9
Electronic Only	15	10.0	14	8.4	22	19.1	51	11.8
Paper Only	20	13.3	37	22.3	29	25.2	86	20.0
Do Not Collect	111	74.0	98	59.0	38	33.0	247	57.3
School Collects Date Of Arrival In Canada Data								
Electronic and Paper	15	10.0	25	15.1	27	23.5	67	15.5
Electronic Only	21	14.0	27	16.3	22	19.1	70	16.2
Paper Only	50	33.3	69	41.6	47	40.9	166	38.5
Do Not Collect	64	42.7	45	27.1	19	16.5	128	29.7
School Collects Entry English Language Proficiency Data								
Electronic and Paper	8	5.3	20	12.0	33	28.7	61	14.2
Electronic Only	15	10.0	21	12.7	23	20.0	59	13.7
Paper Only	58	38.7	69	41.6	41	35.7	168	39.0
Do Not Collect	69	46.0	56	33.7	18	15.7	143	33.2
School Collects Prior Educational Experiences Data								
Electronic and Paper	16	10.7	12	7.2	20	17.4	48	11.1
Electronic Only	13	8.7	13	7.8	10	8.7	36	8.4
Paper Only	72	48.0	89	53.6	64	55.7	225	52.2
Do Not Collect	49	32.7	52	31.3	21	18.3	122	28.3

Summary

Stakeholders/experts emphasized the significant influence of proficiency in L1 on ability to learn English. Case study information indicated less understanding of the significance of this link. No case study sites reported formal assessment in L1, and little capacity to conduct such assessment. Most other information identified in the literature as important to track was tracked by case study schools, although the extent and consistency with which it was tracked is unknown. In schools where there were smaller numbers of ESL students, information that the literature indicated as important to track long-term performance of students seemed more readily available than in schools where there were large numbers of ESL students. In smaller schools and communities the principal and teachers knew the family. In schools where there were large numbers of ESL students, liaisons workers helped

to provide information to the school about the background of the family. The liaison became an important link between the family and the school.

A4. LEADERSHIP PROCESSES

Literature: Leadership Processes

Best practices identified in the literature as ensuring a positive and supportive environment for ESL students include school leadership that:

a) Develops an orientation process for ESL newcomer students and their families
b) Promotes and facilitates ESL family involvement in school activities
c) Supports cultural diversity
d) Promotes interaction and involvement with community-based services
e) Ensures an environment for first language support
f) Provides access to a range of ESL supports including diagnostics

In addition, the literature identifies that staff require professional development and follow-up assistance and collaborative work opportunities to deliver effective ESL programming.

Stakeholders/Experts: Leadership Processes

Leadership is important at three levels: the school, the jurisdiction and the Ministry. At the school level, characteristics of leadership demonstrated by teachers and administrators are reflected in a variety of ways including:

a) The ESL student's first language and culture are valued
b) Teachers and administrators demonstrate knowledge of second language acquisition and instruction
c) Teachers and administrators model appropriate teaching strategies (e.g., differentiated instruction)
d) Teachers and administrators advocate for ESL students
e) Administrators support professional development opportunities and help to build research capacity among teachers
f) Teachers and administrators support innovation and change
g) Teachers and administrators build proactive relationships with immigrant communities
h) Teachers and administrators encourage parent involvement and empower parents to be advocates for their children

At the jurisdiction level, board membership should reflect the cultural diversity of the school communities they represent.

At the Ministerial level, leadership should reflect standard-setting processes to facilitate consistent assessment across jurisdictions. Also, the Ministry should provide additional funding support for smaller jurisdictions to enable teachers to access specialist support available in larger jurisdictions.

Case Studies: Leadership Processes

Case study schools indicated that leadership for ESL resides mainly at the school level with teachers first and supportive administrators second. ESL students themselves can be leaders. The district can also demonstrate support for ESL students.

The large urban high school visited (ESL designated high school) with sheltered ESL classes suggested that good leadership involves specific teaching strategies including mentoring and training in ESL for teachers, active listening and learning from students, and providing students with basic language instruction before moving them into other schools (i.e., non-designated ESL schools) in the system.

School Survey: Leadership Processes

Sixty-eight percent (68%) of schools reported using a comprehensive curriculum plan for ESL instruction. A plan is more likely to be in place when the ESL population in the school is larger (26 or more students) (see Table 15).

Table 15. Schools with a Comprehensive ESL Curriculum Plan

School Uses a Comprehensive Curriculum Plan for ESL Instruction								
Grade Level		ESL Student Population							
		Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
		N	%	N	%	N	%	N	%
	No	56	40.9	48	29.6	26	23.2	130	31.6
	Partial	65	47.4	79	48.8	49	43.8	193	47.0
	Yes	16	11.7	35	21.6	37	33.0	88	21.4

Respondents were asked about several aspects of leadership and planning processes that support optimal achievement of ESL students:

- plan or strategy to address cultural diversity and competency through professional development;
- plan or strategy to meaningfully involve parents of ESL students in supporting student learning;
- involvement of family members with limited English skills in volunteer activities at the school;
- communication plan for families of ESL students;
- promotion of partnerships between the school and families and communities of ESL students;
- leadership to promote family-school-community partnerships;
- administrative support to promote and facilitate collaboration between the school and culturally diverse families and communities; and
- partnerships with ethno-cultural groups and immigrant serving agencies that provide interpretation and translation to families with limited English skills.

Survey results indicate that the larger the ESL student population in a school, the more likely the school is to report having leadership, strategies, and programs to facilitate community-family-school partnerships (See Tables 16 to 21). Full descriptive tables can be found in the Technical Report located in the ESL Study Appendices (Table P17A to 17N).

Table 16. Professional Development

Plan or Strategy to Address Cultural Diversity and Competency Through Professional Development								
Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
No	73	52.9	51	31.5	18	16.1	142	34.5
Partial	52	37.7	80	49.4	59	52.7	191	46.4
Yes	13	9.4	31	19.1	35	31.3	79	19.2

Table 17. Parent Involvement

The School Has a Plan or Strategy to Meaningfully Involve Parents Of ESL Students in Supporting Student Learning								
Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
No	44	31.9	45	27.6	23	20.4	112	27.1
Partial	55	39.9	78	47.9	46	40.7	179	43.2
Yes	39	28.3	40	24.5	44	38.9	123	29.7

Table 18. Communication Plan

The School Has a Communication Plan for Families of ESL Students								
Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
No	47	34.1	42	25.8	18	15.9	107	25.8
Partial	45	32.6	61	37.4	36	31.9	142	34.3
Yes	46	33.3	60	36.8	59	52.2	165	39.9

Table 19. Community Partnerships

The School Establishes Leadership to Promote Family-School-Community Partnerships								
Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
No	44	32.6	58	35.6	29	25.9	131	32.0
Partial	50	37.0	63	38.7	34	30.4	147	35.9
Yes	41	30.4	42	25.8	49	43.8	132	32.2

Table 20. Administrative Support

The School Has Necessary Administrative Support to Promote and Facilitate Collaboration Between the School and Culturally Diverse Families and Communities								
Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
No	49	36.0	49	30.8	20	17.9	118	29.0
Partial	52	38.2	67	42.1	51	45.5	170	41.8
Yes	35	25.7	43	27.0	41	36.6	119	29.2

Table 21. Ethno-cultural Supports and Partnerships

The School Has Partnerships With Ethno-Cultural Groups and Immigrant Serving Agencies That Provide Interpretation and Translation to Families With Limited English Skills								
Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
No	86	63.2	72	45.6	19	16.8	177	43.5
Partial	34	25.0	47	29.7	33	29.2	114	28.0
Yes	16	11.8	39	24.7	61	54.0	116	28.5

Summary

Considerable congruence is apparent among the perspectives of stakeholders/experts, case study schools and the literature. The literature goes one step beyond respect and value for ESL students' first language and culture (which stakeholders/experts and case study schools indicated as important) to ensuring an environment for first language support.

Case study schools and stakeholders/experts emphasized that instructional leadership (knowledge of second language acquisition and instruction) is key and that strategies that support teachers in their efforts to improve instructional capacity demonstrate good leadership practice. Leadership also involves building relationships with parents and empowering them to be effective advocates for their children.

A5. INSTRUCTIONAL PROCESSES/MODELS

Literature: Instructional Processes/Models

Research indicates that schools may adopt more than one type of delivery model to accommodate different students at different stages of language development. ESL programs serve students in three general stages of development: reception (newcomer), transition, and integration. These graduated stages categorize students according to their different needs for instructional support based on their proficiency in English.

Research indicates that newcomer programs (several weeks to several months duration) that focus more on instruction in the mechanics of English than on subject matter content are most appropriate for students with little or no English, for students who are older than their grade level peers, for students who are at risk of dropping out of school, and for students who require extra support. Proponents of the newcomer program model suggest that well-implemented newcomer programs should focus on English language attainment and integration of recently immigrated or refugee students into mainstream schools and society. However, no evidence was found comparing the effect of newcomer models with other types of models.

Transitional models include sheltered programs, pull-out programs, adjunct programs and inclusive programs and are commonly viewed as a staged approach from sheltered to inclusive/integrated programs. Research indicates that ESL teachers or aides typically deliver transition programs with varying involvement of mainstream teachers as emphasis shifts from second language development to instruction that is more content-based.

Sheltered programs with small classes better accommodate the heterogeneity of the students' backgrounds and alleviate the isolation and frustration that newcomers can experience. Although timetabling is difficult, sheltered programs allow students to interact with their peers to a greater degree than they can in a fully-integrated program. Supporters of sheltered programs argue that sheltered programs specifically directed to ESL students better mobilize resources and address learner needs. Supporters of inclusive programs argue that immediate access to the mainstream classroom setting is critical for learning L2.

Pull-out classes are thought to better accommodate beginner and low-intermediate ESL students, especially in schools where there are few ESL students. The benefit of the pull-out approach is that it provides concentrated instruction based on student need. As well, small class sizes allow greater instructional support and more opportunities for students to practice speaking English than they would be able to in a mainstream class.

An adjunct program model links language instruction in English courses with content courses in order to allow ESL students to learn academic content while learning appropriate language and study skills. The content area is taught by a teacher with expertise in subject areas, while the adjunct course focuses on linking content with English language instruction.

This combination of linked class content requires interdisciplinary collaboration between mainstream and ESL teachers. Adjunct programming has been found to be successful in a variety of settings.

In an inclusive program (also called in-class instructional model), students learn curriculum content while they learn English. ESL teachers or teacher aides work with ESL students in the regular classroom setting, but it is the classroom teachers who do the modification of class work for the ESL students. Collaboration among ESL and mainstream teachers is essential to ensure clarity and coordination of teaching, assessment and record keeping roles. This type of program is recommended in elementary classrooms to allow ESL students to participate in all regular classroom activities and in secondary classrooms to allow ESL students to take a wider variety of courses than they would if they were pulled out of regular programming.

Integrated programs (also referred to as mainstream programs) place ESL students into mainstream content-based classes. Depending on availability, students enrolled in integrated programs may also receive ESL support outside the classroom but they do not receive specialized ESL support in the classroom apart from what a mainstream teacher can provide. Evidence indicates that early and full integration in mainstream classes can be detrimental to ESL student achievement. Evidence also suggests that accelerated integration into academic mainstream may lead intermediate level ESL students to drop out of high school sooner than those in sheltered programs. Effective integrated classes make educational opportunities available to all students, function effectively through student involvement and cooperative learning, and consider the language needs of all the students.

Because of the variability in transitional programs it is difficult to draw conclusions about which models are more effective than others. However, there is some evidence to suggest that transitional programs are more effective than fully-integrated programs for students with beginner to intermediate proficiency in English, and when these programs are sustained over a longer period of time (5 years or more). It is generally accepted that integrated programming is best for students whose English proficiency, concept development, and cultural awareness is at a more advanced level.

Regardless of the type of model, after-school support for ESL students is recommended.

Stakeholders/Experts: Instructional Processes/Models

Stakeholders/experts considered culturally competent teachers who are qualified in second language instruction as key to successful academic achievement of ESL students. Instruction in the student's heritage language as well as English would be ideal. Instruction in the mechanics of English within specific content areas was also considered a best practice.

Stakeholder/experts' views differed on the merits of various models of instruction. Fully integrated and pull-out models were both recognized as valuable and important, but perspectives on the timing and duration of pull-out varied. Some stakeholders/experts supported pull-out for several months to two years. Others suggested that integration into mainstream classes should be the norm with pull-out strategies used only when required.

Flexible models and teaching approaches matched to students' learning styles, as well as teacher assistants, resource teachers and liaisons were regarded as very helpful to

supplement classroom instruction and create links between ESL students and their communities. Adjunct classes were seen as particularly helpful in helping ESL students stay current in content areas.

Differentiated instruction, small group and individualized instruction were also mentioned as best practice instructional strategies. However, skepticism and uncertainty were expressed with respect to the breadth and depth of differentiated instruction currently occurring in Alberta classrooms.

Support to parents was recognized as a best practice--support in the form of orientation to Alberta's school system, explanation of school programs and student placement, and translation support (e.g., at parent teacher interviews). Support can be provided by multicultural liaisons who should be familiar with the family's cultural heritage.

Finally, support to teachers, typically in the form of professional development, was identified as a best practice to improve achievement of ESL students overall.

Case Studies: Instructional Processes/Models

As the following table indicates, size seemed to be a determining factor in the model of instruction chosen for ESL students at the case study schools. For example, where the school had sufficient numbers of ESL students, sheltered and/or segregated classrooms were the norm. Pull-out support and modified curriculum with the goal of fully integrating ESL students into mainstream classes was common across schools except in the Kanadier program (a fully segregated program for Mennonite students which focuses on math and English and offers bible study as well). The segregated model seems highly successful with this cultural group.

Teacher assistants in rural schools, more so than in urban schools, tend to provide support to all students as well as ESL students (except in the case of the Kanadier program which serves only ESL students). Specialized support (psychological assessment, speech pathology, etc.) is generally provided by the jurisdiction. Liaison Workers are generally available across sites regardless of the size of the ESL student population.

Note: Detailed descriptives are available in the Case Study Schools Reports located in the ESL Study Appendices.

Table 22. Models of Instruction and Support in ESL Case Schools

Level	Size	Primary Model	Supports
Elementary	Small urban	Full integration with pull-out small group instruction (ESL level 1 & 2, some 3 & 4 by ESL assistant) Whole class & small group instruction Modified curriculum Classroom teachers	ESL assistant Peer tutoring Some cross-grade pairing Interpreters Child care (before/after school on site) Grandparent reading program District generalist support & psychologists
	Mid-size rural	Segregated (Kanadier program) & full integration with minimal pull-out Whole class & small group instruction Modified curriculum ESL (Kanadier) designated classroom teachers	Classroom support teachers Division ESL Coordinator Division Liaison Worker
	Mid-size rural (Aboriginal)	Full integration with pull-out support by Special Education teacher Whole class instruction & small-group instruction Modified curriculum Classroom teachers	Teacher assistants Special needs teachers/assistants Speech language pathologist Speech assistant EOP person ELI person District Pedagogical Supervisor -teacher assistants (TAs) -special education teachers -special needs assistants (SAS) -speech/language pathologist -speech assistant -Educational Opportunity Project (EOP) person -Early Literacy Initiative (ELI) person -district pedagogical supervisors -cooperative planning
	Mid-size rural	Full integration with pull-out support Whole class & small group instruction Modified curriculum Classroom teachers	Liaison Worker Resource Room teacher District psychologist

Level	Size	Primary Model	Supports
Junior High	Large urban	Sheltered classroom Level 1 Partial integration: ESL Option Level 2/3/4 with ESL Designated teacher and shared ESL assistant Full integration: (Level 3/4/5) with pull-out support Modified curriculum in segregated classrooms Differentiated program in mainstream classrooms Benchmarks used ESL Designated teacher	ESL assistant teachers Resource teachers (2) Multicultural Liaisons District Psychologists Speech Pathologist
Senior High	Small rural	Full integration Classroom teachers	Teacher assistants Special Education Coordinator Preventive counselor Guidance counselor Family Wellness Worker District Special Education Director Other district schools
	Large urban	Sheltered classroom Level 1 Full integration with pull-out support for Level 2, 3, 4, 5 Whole class & small group instruction Modified curriculum ESL Designated teachers Classroom teachers	Counselor Social Worker Liaison Workers Interpreters ESL consultant Diagnosticians Assessment specialists AISI consultant
	Large urban	Dedicated ESL classes for two periods each day (most Level 3, 4; some Level 1, 2) Some pull-out support Modified curriculum (ESL-Oriented curriculum for Science, Social, English)	Counselors Student Services District Multi-lingual Services Assistant Principals Titans International (student support group)

Survey Data: Instructional Processes/Models

Schools were asked which models of ESL instruction they used in their schools. Five models were presented to the respondents:

1. Full-day self-contained classes with ESL students only
2. Half-day self-contained classes where students spend either a morning or afternoon in ESL classes and the rest of the day in non-ESL classes
3. Pull-out classes with school based teachers where students are either pulled out of regular classes for ESL instruction or given blocks of ESL rather than certain subject courses
4. Pull-out classes with itinerant teachers
5. In-class ESL support where students receive ESL support in regular classrooms

Sixty-four percent (64%) of schools reported that they used an in-class ESL support model. Use of this model was reported more frequently among schools with small ESL student populations than by schools with larger ESL student populations. The second most commonly-reported model of ESL instruction was pull-out classes with school-based teachers (20%).

Table 23. Models of ESL Instruction

Models of ESL Instruction								
Class Type	ESL Student Population Group Total							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Full Day Self Contained	164	11.2	185	12.4	125	9.4	491	11.1
Half Day Self Contained	164	1.0	185	0.0	125	7.2	491	2.3
Pullout - School Based	164	10.0	185	22.5	125	28.1	491	20.0
Pullout - Itinerant	164	5.1	185	3.0	125	1.1	491	3.2
In class ESL Support - School Based	164	74.0	185	62.1	125	54.0	491	63.7

Twenty-five percent (25%) of schools reported they use tutors as ESL support. Tutoring ranged from 14% of schools in the K-3 category to 51% of schools in the 10-12 category.

Fifty-nine percent (59%) of all schools reported frequently using informal peer mentoring support--most prevalent in grades 7 to 9 (66% of schools).

Table 24. ESL Tutor Support

Extent of Tutor Support									
Across Grade Levels		ESL Student Population							
		Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
		N	%	N	%	N	%	N	%
	Never or Almost Never or Seldom	95	74.2	110	70.5	71	62.3	276	69.3
	Often or Almost Always or Always	26	20.3	36	23.1	40	35.1	102	25.6
	Don't Know	7	5.5	10	6.4	3	2.6	20	5.0
Extent of Informal Peer Mentorship Support									
	Never or Almost Never or Seldom	48	37.8	68	43.9	34	29.6	150	37.8
	Often or Almost Always or Always	77	60.6	80	51.6	80	69.6	237	59.7
	Don't Know	2	1.6	7	4.5	1	0.9	10	2.5

Summary

Research from the literature supports transitional programs (sheltered, pull-out, adjunct, inclusive) sustained for a period of five or more years, and classes that promote and are organized for interaction between ESL students, other students, and teachers. Research from the literature also indicates that full integration of ESL students into mainstream classes, if done too early, can be detrimental to achievement of ESL students. Further, research indicates that pull-out programs (several weeks to several months duration) are most beneficial to newcomer students who have little or no English, for ESL students who are older than their grade level peers, or who are at risk of dropping out of school.

Case study data indicate that integration of ESL students into classes with pull-out support is the most common model of instruction in current use, although across case study sites (with the possible exception of the Kanadier program), the goal was to move toward full integration of ESL students into mainstream classrooms. Sheltered classrooms are the norm in large schools with large numbers of ESL students as well as in the Kanadier program in a smaller elementary school in rural Alberta.

Therefore, for the most part, current models of instruction at case study sites reflect best practice models identified in the literature. Where stakeholders'/experts' perspectives varied was not on the value of pull-out or integrated models, but on the duration of pull-out support prior to full integration.

A6. PRE-SERVICE AND IN-SERVICE REQUIREMENTS

Literature: Pre-service and In-Service Requirements

Teacher knowledge of cultural backgrounds of second language learners and specialized knowledge of approaches to language acquisition are major influencing factors on achievement of ESL students.

Research indicates that teachers require explicit instruction in how to respond to the needs of ESL students. They also require professional development and follow-up support to encourage understanding of cultural diversity.

Stakeholders/Experts: Pre-service and In-Service Requirements

In stakeholders'/experts' views, training in cultural competence is key for both pre- and in-service programs for teachers. A prescribed set of courses that leads to certification in ESL instruction is preferred to isolated professional development activities. One of the barriers to increasing pre-service teachers' exposure to ESL training is revising current teacher training requirements to include more than one optional course in ESL.

Case Studies: Pre-service and In-Service Requirements

Case study participants identified that pre-service teachers should have training in:

1. Language acquisition
2. Cultural competence
3. Assessment
4. Differentiated instruction
5. Special needs

In-service teachers should have:

1. Professional development opportunities
2. Teacher-to-teacher mentoring at the school level
3. Supportive administrators
4. Peer support
5. Appropriate and sufficient resources
6. Support of district consultants

Survey Data: Pre-service and In-service Requirements

Pre-service and In-service Training

Eighty-seven percent (87%) of all schools reported having any ESL designated or mainstream ESL teachers. Forty-four percent (44%) of schools reported having a designated ESL teacher. However, designated ESL support for students tends to be higher in grade 10 to 12. Most schools (61%) reported having ESL support staff.

Table 25. Designated/Mainstream Support for ESL Students

Across Grade Level	ESL Student Population						Group Total	
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Any designated ESL teachers	164	24	185	42	125	71	474	44
Any ESL mainstream teachers	164	70	185	71	125	73	474	71
Any ESL designated and/or mainstream teachers	164	81	185	88	125	93	474	67
Any ESL support staff	164	49	185	64	125	73	474	61

The extent to which Alberta schools have trained ESL staff varies across schools and grade levels. However, on average 63% of schools reported that staff designated to instruct ESL students had some ESL training. Twenty-seven (27%) of ESL designated teachers had no ESL training. Only 14% of schools reported that ESL designated teachers had an ESL diploma or certificate, or a degree in ESL (see Table P7D). Again, trained staff was more prevalent in grade 10 to 12.

Table 26. ESL Training for Designated ESL Teachers

Across Grade Level	ESL Student Population						Group Total	
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Percentage of ESL designated teachers with no ESL training	164	45	185	30	125	16	474	27
Percentage of ESL designated teachers with some ESL training	164	52	185	64	125	67	474	63
Percentage of ESL designated teachers with ESL Diploma or Certificate	164	0	185	5	125	12	474	7
Percentage of ESL designated teachers with degree in ESL	164	0	185	5	125	12	474	7

Mainstream teachers that teach ESL students tend not to have ESL training. Sixty-four percent (64%) of ESL mainstream teachers had no ESL training.

Table 27. ESL Training for Mainstream ESL Teachers

Across Grade Level	ESL Student Population						Group Total	
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Percentage of ESL mainstream teachers with no ESL training	164	71	185	67	125	49	474	64
Percentage of ESL mainstream teachers with some ESL training	164	27	185	31	125	48	474	35
Percentage of ESL mainstream teachers with ESL Diploma or Certificate	164	1	185	1	125	2	474	1
Percentage of ESL mainstream teachers with degree in ESL	164	1	185	1	125	2	474	1

Cultural Sensitivity

Respondents were asked several questions related to the climate of cultural competence in their schools. Sixty-two percent (62%) of schools reported that they had frequent discussions to address and promote cultural competence. Discussions of cultural competence were more prevalent at the high school level and where more ESL students were enrolled.

Table 28. Cultural Competence Discussion

Extent to Which There are Discussions to Address and Promote Cultural Competence								
Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Never or Almost Never or Seldom	42	32.8	56	35.2	28	24.6	126	31.4
Often or Almost Always or Always	76	59.4	96	60.4	79	69.3	251	62.6
Don't Know	10	7.8	7	4.4	7	6.1	24	6.0

Seventy-four percent (74%) of schools reported they had leadership that demonstrated its commitment to cultural competence.

Table 29. Cultural Competence and School Leadership

Extent to Which School Leadership Demonstrates its Commitment to Cultural Competence								
Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Never or Almost Never or Seldom	21	16.4	37	23.6	16	13.9	74	18.5
Often or Almost Always or Always	94	73.4	111	70.7	91	79.1	296	74.0
Don't Know	13	10.2	9	5.7	8	7.0	30	7.5

Twenty-two percent (22%) of schools reported frequently involving culturally diverse parents to promote cultural competency.

Table 30. Involving Parents in Cultural Competence

Extent to Which Culturally Diverse Parents are Involved in Promoting Cultural Competence								
Across Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Never or Almost Never or Seldom	73	57.5	111	70.7	77	66.4	261	65.3
Often or Almost Always or Always	38	29.9	25	15.9	28	24.1	91	22.8
Don't Know	16	12.6	21	13.4	11	9.5	48	12.0

Table 31. Cultural Competence Resourcing

Extent to Which The School Personnel Choose Classroom and Library Materials That Reflect Culturally Diverse Groups								
Cross Grade Levels	ESL Student Population							
	Schools with 1-5 ESL Students		Schools with 6-25 ESL Students		Schools with 26 or more ESL Students		Total Schools	
	N	%	N	%	N	%	N	%
Never or Almost Never or Seldom	23	17.7%	32	20.4%	8	7.0%	63	15.7%
Often or Almost Always or Always	98	75.4%	118	75.2%	99	86.1%	315	78.4%
Don't Know	9	6.9%	7	4.5%	8	7.0%	24	6.0%
Extent to Which Adequate Resources are Allocated to Address and Promote Cultural Competence								
Never or Almost Never or Seldom	57	44.5%	72	45.9%	39	34.2%	168	42.1%
Often or Almost Always or Always	53	41.4%	74	47.1%	62	54.4%	189	47.4%
Don't Know	18	14.1%	11	7.0%	13	11.4%	42	10.5%

Seventy-eight (78%) of schools reported that school personnel chose classroom and library materials that reflect culturally diverse groups. However, 53% of schools reported that they rarely had adequate resources to address and promote cultural competency (see Table 31).

Summary

There is considerable congruence between research from the literature, perspectives of stakeholders/experts and people teaching ESL students. Stakeholders/experts and case study participants uniformly recognize that to support achievement of ESL students teachers need training in language acquisition, cultural competence, differentiated instruction and assessment. Further, the literature indicates that understanding of cultural diversity does not occur without professional development and follow-up support. Case study sites emphasized the importance of peer and administrator support including sufficient and appropriate resources.

A7. REASONS FOR EARLY LEAVING

Literature: Reasons for Early Leaving

ESL students demonstrate drop-out rates that far exceed non-ESL students. Therefore, ensuring support of academic success of ESL students is critical.

Stakeholders/Experts: Reasons for Early Leaving

Stakeholders/experts identified seven main reasons for early leaving including:

a) Insufficient time to complete high school courses

b) Frustration at the disparity between achievement with age peers
c) Stigmatization at not being able to keep up with the demands of the curriculum
d) Racial discrimination
e) Unmet psycho-social needs
f) Family responsibilities

It should be noted that stakeholders/experts emphasized negative implications of ignoring the circumstances that cause early leaving--that is, serious social consequences of early leavers and under-employed ESL students who enter the workforce.

Case Studies: Reasons for Early Leaving

Early leaving was mentioned as a problem at the senior high level in urban schools but not in the rural high school visited. Reasons for early leaving shared by case study participants included:

a) Lack of time to complete high school
b) Frustration at lagging behind age peers
c) Low self-esteem because of failure and/or inability to keep pace
d) Family responsibilities at home and lack of support from home to complete high school
e) Lack of motivation on the part of the student

It should be noted that teen pregnancy and substance abuse were mentioned as reasons for early leaving by the northern Alberta case study school which was comprised of predominantly Aboriginal students. School staff interviewed indicated that some of these students reflect a myriad of social problems which keep them from attending school on a regular basis and from completing high school.

Summary

There is considerable congruence among the views of case study participants and stakeholders/experts. Early leaving can be attributed primarily to lack of time to complete high school, frustration and low self-esteem, and family responsibilities. Racial discrimination, while mentioned by stakeholders/experts was not identified at the case study sites. There, motivation of the ESL students themselves was identified—possibly as a consequence of frustration and low self-esteem, but also possibly due to cultural norms influencing the value newcomer students place on education.

(No survey questions addressed early leaving.)

B. PREDICTORS OF ESL STUDENT OUTCOMES

The literature, stakeholder/expert opinion, and case studies in Alberta Schools were used to identify what predictor variables might be expected to be associated with ESL student success. To test some of these assumptions, system data and data collected through a province-wide survey were used to identify independent or predictor variables that were most associated with ESL student success on Provincial Achievement Tests (PATs) (e.g., teaching methods, teaching skill prerequisites, age/grade of entry into Alberta classrooms, language proficiency on entry, educational experiences prior to entry into Alberta schools, first language proficiency, mentoring supports).

B1. LITERATURE: PREDICTORS OF ESL STUDENT SUCCESS

The literature suggests that the following are predictors of ESL student success:

- Years of previous schooling in first language
- Proficiency in first language (L1)
- English proficiency at entry
- Hours of instruction
- Past academic achievement
- Parent involvement
- Resources and funding
- ESL student attitude and motivation
- Length of residence
- Socioeconomic status
- Training and experience of ESL teachers

Years of Previous Schooling in First Language (L1)

Years of previous schooling in L1 is found to be the most predictive variable of academic success among ESL students regardless of L1 language, country of origin, socioeconomic status and other demographic variables. In a nation-wide longitudinal study conducted in the USA, it was found that the amount of formal schooling in L1 was the strongest predictor of success in L2. Similar findings have been reported in British Columbia. It has been reported that in USA schools where all instruction is provided in English only, ESL learners with no previous schooling in their first language take 7 to 10 years or more to reach age and grade level norms of their English speaking peers. Those with 2 to 3 years of previous schooling take 5 to 7 years to catch up to their English-speaking peers.

Proficiency in First Language (L1)

Literature indicates that ESL students under-achieve compared to their non-ESL counterparts. With respect to proficiency in first language (L1) comprehensive meta-analytic review of the literature indicates that proficiency in first language is a strong predictor of academic success in L2 and in L2 language acquisition. It is thought that academic skills, literacy development, concept formation, subject knowledge, and learning strategies developed in the first language all transfer to the second language. There is a growing body

of evidence supporting cross-language transfer of phonological awareness, reading errors and fluency, reading comprehension, letter and word knowledge, print concepts, and sentence memory. It has also been suggested that the acquisition of the first language is associated with ethnic self-identification which, in turn, may contribute to academic success.

English Proficiency at Entry

A student's English proficiency at point of entry is a strong predictor of high school drop-out rates. Research also indicates that those with limited proficiency in English are at a greater risk of dropping out than mainstream students who are in turn at greater risk of dropping out than fully bilingual students. Research describes the successful high-school ESL student as having a good educational background and having studied English prior to arrival in high school.

Hours of Instruction

Research indicates that for an English-speaking student to gain proficiency in a second language 1.5 to 4.5 hours of instruction per week are required. An approximate doubling of these amounts would be required to achieve advanced levels of proficiency. The variability in recommended instruction time is related to linguistic distance, that is, the difference between L1 and L2 in terms of alphabet, form, syntax and grammatical structure. It has been estimated that students with limited English language proficiency need two years of ESL education to develop interpersonal communication skills and five to seven years to develop academic language proficiency.

Past Academic Achievement

Research indicates that past academic achievement in L2 is the single most important factor in predicting current scholastic performance in L2.

Parent Involvement

Parental involvement has been found to be an important predictor of educational achievement in the general population. Programs designed to involve immigrant parents in their children's school activities and educational programs are very important to support their academic achievement.

Resources and Funding

Though literature directly linking ESL resource and funding distribution to academic success was not identified, some inferences can be drawn. An Alberta-based study indicated that while provincial funding cuts did not significantly affect high school drop-out rates, they did appear to have an impact on drop-out trajectories for intermediate ESL students (e.g., they dropped out of the system earlier after the funding cuts than they had before the cuts).

ESL Student Attitude and Motivation

The literature indicates that individual difference variables such as attitude and motivation are important in the acquisition of second language proficiency. Attitudes about a particular language and self-confidence are important precursors to motivation to learn and that this

motivation is, in turn, an important predictor of success. Experiencing success is found to further influence feelings of self-confidence.

Length of Residence

Research indicates that length of residence rather than age at arrival is a more important variable to consider because the age effects assume an underlying developmental model that is extremely difficult to substantiate in applied settings, whereas length of residence is based on an exposure model that is more readily testable. In applying stringent statistical controls, it is found that length of residence is predictive of the acquisition of a second language but is likely moderated by the amount of exposure to the second language.

Socioeconomic Status

Socioeconomic status is found to be predictive of the rate of acquisition of the English language by ESL students.

Training and Experience of ESL Teachers

Research suggests that teachers of ESL students need to have training and experience in language acquisition and that they should have fluency in a second language as well. Research also indicates that best practice for ESL instruction includes teachers who have knowledge of the cultural backgrounds of second language learners. A recent meta-analysis of effective ESL programming identified teacher experience and expertise as a major factor.

B2. STAKEHOLDERS/EXPERTS: PREDICTORS OF ESL STUDENT SUCCESS

Years of Previous Schooling in First Language (L1)

Stakeholders/experts highlighted several key predictors of success--proficiency in the student's first language being the primary predictor. Understanding of advanced concepts is facilitated by having a foundational structure in L1 to which concepts and words in the second language can be linked. For students with limited prior educational experience, foundational linguistic and conceptual structures may be absent or limited making learning a new language difficult. Therefore, extent of formal schooling is a significant predictor. Level of maintenance of L1 was also identified as a predictor of academic success.

Socioeconomic Status

Socio-emotional experiences of students (and their families) as well as family involvement in the student's school life, influence ESL students' readiness to learn as well as their academic achievement. The reason the student came to Canada is relevant (i.e., refugee, immigrant, family reunification) as is the level of parental education and knowledge of the school system. The level to which students feel that their heritage culture is respected (that is, supportive attitudes and school environment) is another influence.

Cultural Competence of Teachers

Culturally competent teachers qualified in second language instruction were identified as the most important resource to support academic achievement of ESL students. Sufficient numbers of staff trained in ESL instruction, professional development opportunities for staff and paraprofessionals, administrative support, and appropriate and sufficient resources, were all identified as interplaying to influence academic achievement of ESL students. The level of information sharing of best practice research and professional development opportunities for teachers of ESL students, in-services and workshops that expand the skill sets of teachers and draw increasingly larger numbers of teachers into professional development sessions, were regarded as best practices that can and do occur in Alberta schools.

In addition, schools where ESL students are regarded as gifts rather than burdens and where differentiation and modification of curricula is the norm and where research is incorporated into classroom instruction, may predict academic success of ESL students.

ESL Resource Materials

Materials at varieties of reading and interest levels were cited as the next most valuable resources. There was general agreement that appropriate resources are difficult to find and as a result teachers resort to authoring their own.

Time to Complete High School

Time to complete high school was identified as an important factor that influences drop-out rates of ESL students.

Mentoring and Extracurricular Support

Mentoring support, particularly buddying of new ESL students to students whose first language is English and/or to students who share the same cultural group as the newcomer student, was regarded as a common best practice that most schools employ. After-school programs, homework clubs and life skills programs were mentioned as best practices. In large jurisdictions such as CBE, groups such as the Boys and Girls Club and Bridge Foundation for Youth were identified as providing important support to ESL students. Also mentioned were settlement programs for families/parents that help to empower parents to gain familiarity with their children's schools and school system. Stakeholders/experts cautioned that over-reliance on community volunteers can occur and should not replace the role of school jurisdictions in assuming responsibility for supporting ESL students.

Other predictor variables mentioned by stakeholders/experts included:

- Quality/quantity/duration of instructional support (that is, time for ESL students to learn English)
- Level of collaboration of the jurisdiction/school with community supports
- Social supports available to parents/families
- Level of integration of ESL students into mainstream classes
- Students' attitudes
- Level of support for L1 in the community
- Standardized monitoring and assessment processes

- Representation of cultural diversity on school staff
- Level of participation of ESL students on Provincial Achievement Tests
- Number of ESL students enrolled in post-secondary programs across faculties (i.e., beyond engineering and science)

Barriers to Implementing Best Practices

Stakeholders/experts confirmed predictor variables by identifying several barriers they regard as impeding implementation of best practice support to ESL students:

- Appropriate levels of resourcing (e.g., funds to supplement Basic Instructional Grants (BIG) for ESL students, removal of the five-year cap on funding for ESL)
- Public awareness and support for increased funding for ESL students—foreign or Canadian-born—including advocacy to local school boards
- Positive self-esteem of ESL students
- Non-racist school environment
- Appropriate assessment and support for post-traumatic stress
- Teacher expertise in second language acquisition and cross-cultural training (including teachers with diverse cultural and linguistic backgrounds)
- Affordable and accessible professional development opportunities for teachers and support professionals
- Consistent assessment processes that help to identify authentic special needs;
- Standard Guides of Study for ESL across grade levels
- Consistent administration of achievement tests (in this case, Provincial Achievement Tests)
- Settlement support for ESL families to encourage their active engagement in their students' academic lives, and reduce ESL students' responsibilities to support the family
- Realistic expectations of parents of ESL students
- Integrated information systems that support information sharing among jurisdictions and levels of education (e.g., school/university)

Funding

The school-based funding model currently in place in Alberta is of concern to stakeholders/experts particularly with respect to equity for ESL students. Stakeholders/experts were aware that in some schools in order to help ESL students complete high school, schools are overlooking age and funding restrictions and allow ESL students to attend regardless.

Stakeholders/experts support increased funding support for ESL students during their first two years in Alberta schools and greater accountability by jurisdictions and schools for disposition of funds to ESL overall. They also support funding/increased funding for:

a) Teacher professional development (e.g., how to optimize use of teacher assistants)
b) Research (i.e., researching and profiling the early literacy needs of ESL students and linking that to benchmarks and instructional strategies; researching best practices in other jurisdictions particularly with respect to assessment processes and tools; and conducting a literature review on diagnostic tools)
c) Reducing class sizes to allow classroom teachers to spend more time with ESL students

d) Increasing funding for sheltered classrooms and bridging strategies to integrate ESL students into mainstream classes
e) Funding for curriculum development and standardized benchmarks
f) Enhanced support for psychological support
g) Advocacy for increased federal support for settlement and instructional support for ESL students
h) Continued support for special funding such as AISI

B3. CASE STUDIES: PREDICTORS OF ESL STUDENT SUCCESS

The top 5 influencing factors reported most frequently by case study schools were:

- Pre-immigration experiences (educational/socio-emotional)
- Proficiency in L1 and L2
- Age at entry
- Teacher training
- Mentoring supports

Other factors mentioned included:

- Parent support
- Resources
- Leadership
- Class size
- Student motivation

It is interesting to note that in four of the eight case study schools proficiency in L1 was mentioned as a more important factor influencing student achievement than proficiency in L2, although both were considered important by all schools. Teacher training/qualification was mentioned less frequently and with lower priority as an important predictor of student achievement in rural than urban schools visited.

Best Practices

Participant interviewees in case study schools were asked to share their perspectives on best practices, and in addition, any barriers they felt circumvented the likelihood of best practice implementation. The following list and chart represents their views. A range of best practices were reported by case study schools as follows:

a) Small group instruction was regarded more frequently as a best practice at the elementary level, while sheltered classrooms were identified at junior and senior high levels
b) Resources are particularly important at the elementary level
c) Caring staff may be regarded as more important than ESL training at the elementary level
d) Good diagnosis and assessment were identified as best practices at elementary and senior high levels
e) Teacher assistants were identified at elementary and senior high levels
f) Leadership, parent involvement and teacher mentoring were identified as best practices at all levels

Table 32. Best Practices Reported by Case Study Schools

Most Common Best Practices Identified	Elementary	Jr. High	Sr. High
Small group instruction	√, √		√
Integration			√, √
Sheltered classrooms		√	√
Ability-age grouping	√		
Cooperative learning	√		√
Emphasis on oral language	√		
Specific instructional strategies (list of ESL students across school, displaying students' work, vocabulary development, report cards directly home)			√
Multiple methods	√, √		
Leadership/supportive administration	√, √	√	√, √
Visual aids	√, √, √		√
Good resources	√, √, √, √		√, √
Teacher-developed resources	√		
Caring, competent staff	√		
Teacher passion		√	√
Trained teachers			√
Special education support, resource room, teacher assistants	√		√, √
Ability to track performance over time	√		
Good diagnosis/assessment	√		√, √
Assessment of L2 proficiency			√
Use of rubrics in classrooms			√
Mentoring supports for students (peer support, cross-grade pairing)	√, √		√, √
Teacher mentoring/sharing/professional development	√	√	√, √
Community mentoring/supports	√		√
Parent involvement	√	√	√
Involvement of community members	√		
Celebration of diversity	√		√

Supportive administrators were reported as key facilitators of best practices at all levels. In particular, specialists available from the jurisdiction were identified at the senior high level. Elementary case study schools identified small class sizes, teacher collaboration and on-the-job training as helping them to implement best practice strategies.

Key barriers and challenges to implementing best practice were reported by case study schools as indicated in the chart below. Common across elementary, junior and senior high was the limitations of the five year funding cap, lack of funding for resources and lack of trained teachers. Lack of parental support and involvement was identified at elementary and senior high levels. Note that the junior high school visited had a large proportion of ESL students and staff dedicated specifically to ESL students. This may account for the lower number of barriers identified than in the elementary schools visited. Similar results are reflected by one of the senior high school visited. The second senior high had very few ESL students.

Table 33. Barriers to Best Practices in Case Study Schools

Most Common Barriers Identified	Elementary	Jr. High	Sr. High
Lack of knowledge of resources	√		
Lack of time for teacher collaboration	√		
Lack of PD (appropriate, during school hours etc.)	√, √, √		
Identifying student needs masked by proficiency in L2	√		
Lack of trained teachers (ESL, differentiated instruction)	√, √, √		√
Lack of specialized services	√		
Identification of ESL students (code 303)	√		
5-year funding cap	√	√	√
Sporadic student attendance	√, √, √	√	
Large class sizes	√		
Segregation among cultural groups	√, √		
Ability to respond to cultural needs	√		
Meeting special needs of ESL students	√		
Teacher turnover	√, √		
Lack of funds to purchase resources	√	√	√
Lack of funds to hire teachers	√		√
Time (for instruction, to visit families)	√, √		√
Lack of parental support/involvement (e.g., little understanding of English, lack of communication)	√, √, √, √		√
Socio-economic situation of family (e.g., substance abuse)	√		√
Inaccurate ages of students on entry	√	√	
Lack of social support for family in the community (drug, gang problems, housing/nutrition)		√	√
Overcoming reputation of school			√

Funding

Six of the eight case study schools expressed dissatisfaction with levels of funding. Amounts per ESL student above Basic Instructional Grant varied: $900 (in addition to 35 Credit Equivalent Units), $925 (for a total of $4787), and $1020. One large urban high school reported block funding at $4000 per ESL student per year. In one of these schools (rural elementary) most students are Aboriginal and additional funds are received from other sources (First Nations).

With respect to funding, case study data indicate that only two schools studied (one a rural elementary and one a rural high school) are satisfied with the level of funding they receive from their jurisdictions for ESL students. The elementary school reported receiving approximately $660 per ESL student above the Basic Instructional Grant (BIG), while the high school receives approximately $1020. In the high school, there are very few ESL students and those students are generally affluent and of European heritage. The principal in the rural high school visited supports a greater proportion of funding for elementary schools in his jurisdiction since students generally arrive at a young age and the principal felt that greater support for ESL students should be offered in the early years of their arrival. In this school funding for ESL is also used to support the special education program which benefits non-ESL students as well.

The principal of the rural elementary school reported that a surplus of funds results in his school whose ESL student population is comprised mainly of Kanadier Mennonites. Funds

in this elementary school are used to increase teacher time with ESL students and to hire teacher assistants.

The five year funding cap is viewed as too limited for students to gain proficiency in English. ESL students entering Alberta schools at elementary and/or junior high levels may have used the five year funding allotment prior to entering high school. If an ESL student enters Alberta schools when he/she is of high school age, age restrictions generally mean that ESL students are unable to gain sufficient proficiency in English to complete high school.

Further, current policy dictates that students who leave high school without completing diploma requirements, and who want to complete high school requirements in the adult education system, must wait one year before entering the adult education system. This is of serious concern to high school teachers who believe that many students fail to enroll in the adult education system and either halt their education altogether, or enter the workforce—under-educated and under-skilled.

Achievement Testing

The following are some overall perspectives from stakeholders/experts and case study participants.

Stakeholders/Experts: Achievement Testing

Stakeholders/experts suspect that criteria for selecting ESL students who would not write PATs are inconsistently implemented across the province. Some schools, for example, may exempt ESL students to maintain a school average, which is often lowered with inclusion of test results of ESL students, particularly if the English skills of these students are low. Therefore, diploma exam results may not be a good indicator of academic success of ESL students.

Case Studies: Achievement Testing

Case study participants indicated that level of funding support for ESL programs in the school has a significant influence on student achievement on PATs. They also indicated that accommodations are provided to ESL students, typically in the form of readers, scribes, and extra time. Exemptions are common when the student has been in Canada for less than one year. Teachers generally request exemptions from their school administrators who then forward requests to their superintendents. Exemption and accommodation practices for PATs were not consistent across case study schools (i.e., the level and type of support provided varied).

B4. PREDICTORS OF ESL STUDENT SUCCESS

Predictors of academic achievement of ESL students were examined and are presented according to the following outcome areas:

1. Remaining in the Alberta Education system[12]
2. Moving forward in system with age peers[13]

[12] *Remaining in the Alberta Education system:* Within each cohort, students were identified as having maintained their enrolment in the Alberta Education system if they were identified as part of the cohort and were found to be enrolled in any school and at any grade in the 2003/04 school year.

3. PAT/DE completion[14]
4. PAT/DE results[15]
5. Improvement in achievement over successive PAT/DEs[16]

Data Sources

Data for the predictor analyses were drawn from two data sources. The first included individual student information and outcome data provided by Alberta Education. The second was information that Howard Research collected through a school-based survey (randomly selected schools throughout the province). The purpose of the survey was to collect both contextual information regarding the school environment ESL students experience as well as potential school-based predictors of success (e.g., instructional methods, models of instruction) that have been identified in the literature.

This initial identification of predictors was exploratory in nature. As a result, analyses largely took the form of regression analyses with the exception of the exploration of changes in relative achievement levels over subsequent completions of PAT/DEs (Provincial Achievement Tests or Diploma Exams). A full description of methods and results can be found under separate cover in the ESL Study Appendices under Predictors of ESL Student Outcomes.

Data Source #1: Information System Data

A measurement of outcomes existed at the individual level and was specific to PAT/DEs in grades 3, 6, 9, and 12 these grade levels are represented as separate cohorts for analyses. Though year cohorts could also have been identified and analyzed, a decision was made to restrict all analyses to the completers or potential completers of PAT/DEs in 2003/04. Grade cohort identification was somewhat complex as PAT/DE completions can be considered outcomes in their own right. As a result, cohorts needed to be identified beyond those students registered as grade 3, 6, 9, and 12 in 2003/04. Rather, a procedure of applying inclusion criteria was used to select all students who were potential members of each cohort.

Inclusion Criteria Information System Data

A series of decision criteria were used to eliminate students included as a result of potential data entry errors as well as those with extreme deviation from more prototypical cohort members. Specifically the following criteria were used:

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[13] *Moving forward in system with age peers:* Within each cohort, students were identified as having moved forward with their age peers if they were identified as part of the cohort and were found to be enrolled in any school at the final grade within each cohort definition (i.e., at grade 3, 6, 9, and 12 within the K-3, 4-6, 7-9, and 9-12 cohorts respectively).

[14] *PAT/DE Completion:* Within each cohort, students were identified as having completed PAT/DEs if identified by Alberta Education as having completed the exams. Students who partially completed a component of an exam were identified as non-completers.

[15] *PAT/DE Achievement Results:* Within each cohort, PAT/DE percentage scores were used for analysis. For PATs only total scores on each exam were available for analyses. For diploma courses in grade 12, exam scores, school scores and total scores (average of exam and school) were available for analyses. It is important to note that only exam completers are included in the analyses.

[16] *Improved Achievement:* Improved achievement was operationalized as the residuals remaining after regressing an earlier PAT result on a subsequent PAT/DE result (e.g., regressing grade 6 Math PAT scores on grade 9 Math PAT scores). These residuals represent improvements or deteriorations from previous achievement levels. These residuals control for previous achievement levels and are more relevant to assessing the effectiveness of what schools have implemented for ESL student programming.

Criteria 1: A student's grade in each year was subtracted from their grade in each subsequent year then summed across all year pairs. The following were considered acceptable criteria 1 scores:

- 0-3 for grade 3 cohort
- 0-6 for grade 6 cohort
- 0-8 for grade 9 cohort
- 0-8 for grade 12 cohort[17]

Criteria 2: A student's grade in each year was subtracted from their grade in each subsequent year. The number of times the result was a value other than 1 or 0 (1= advanced, 0= retained) was computed. A record was retained if this occurred two or fewer times.

Criteria 3: The number of times a student's grade exceeded the cohort maximum was computed (e.g., grade 4 indicated for an individual identified as K-3). A record was retained if this occurred one or fewer times.

Criteria 4: The number of times a grade was identified in the last three school years that was a member of a grade cohort two levels removed (e.g., being identified in grade 3 in 2001/02 when the individual was identified as being in the 9-12 cohort in 2003/04) was computed. A record was retained if this occurred one or fewer times.

Criteria 5: Each student's age was subtracted from the modal age within each cohort (i.e., 8, 11, 14 and 17 within the K-3, 4-6, 7-9, and 9-12 cohorts respectively). Students that deviated from this modal age by three or fewer years were retained.

Individual Predictors by Proxy

There are several potential individual-level predictors that are not collected as part of the Student Information System (SIS). These include important ESL student characteristics such as refugee status, first language proficiency, special needs (beyond English proficiency), being in need of trauma counseling, previous formal schooling, and English language proficiency. In order to estimate the relationship between these variables and ESL student success outcomes, the proportion of students within schools meeting with a particular characteristic was used as a proxy for these ESL student characteristics. That is, rather than looking at the direct relationship between these characteristics and success outcomes, the relationship between the probability of having these characteristics (calculated from information collected in the school survey) and success outcomes was used.

These results should be interpreted with caution as this process may overestimate the predictive effects of these variables. As these proxies describe students currently within the Alberta education system and not those who may have dropped out of the system, using these proxies in predicting maintained enrolment in the system is not appropriate and therefore was not analyzed as a potential outcome.

Outcome Analysis

Though all PAT subject areas and a variety of grade 12 matriculation courses were analyzed as outcomes, detailed synthesis focused on English (English Language Arts 30.1 in grade 12) and Math results (Pure Math 30 in grade 12). These two subject areas were chosen for two reasons. The first is that these subject areas are consistently assessed

[17] Data are available to 1995/96 only.

across all grade cohorts. The second is that these areas likely represent those most (English) and least (math) influenced by English language proficiency among ESL students.

Data Source #2: School Survey Data

The school survey was used in combination with data obtained from Alberta Education to analyze the relationships between school-level predictors and improvement in achievement between subsequent PAT/DE writings. The original intent was to use a hierarchical linear analyses approach to combine school-level and individual data. However, the variability in the number of ESL students across schools resulted in an inadequate sample size to estimate regression parameters within schools. As a result, school-level data were merged with the individual outcome data (IS data) using the school code as a merging variable. It should be noted that this approach tends to overestimate predictive effects of school context variables.

This initial identification of predictors using school survey data is exploratory in nature. As a result, analyses largely took the form of simple regression analyses with the exception of the exploration of changes in relative achievement levels over subsequent completions of PATs or DEs. In the former case, zero order correlation coefficients (or simple effect sizes) are reported and synthesized. In the latter case, the effects of potential predictors were assessed after controlling for previous achievement levels using a multiple regression covariate approach.

Inclusion Criteria School Survey Data

In examining the predictive influences of school context variables, all school respondents (principal or teacher) that appeared to be responding vis-à-vis an entire school rather than the specific grade ranges requested were excluded from analyses[18].

Outcome Analysis

For school survey data, the outcome analyzed was improvement in achievement. This was operationalized as the predictive residuals after regressing an earlier PAT exam result on a later PAT or Diploma Exam. This procedure was used as it is most likely to isolate the effects of school contextual variables while controlling for both previous school experience and achievement levels a student brought with him/her when entering a particular grade cohort. As it is not possible to control for previous achievement levels in the K-3 cohort, these grades were not included in the analyses.

It is important to note that non-significant results indicate that there is no deterioration or improvement in relative achievement over successive PAT or Diploma Exam results. In other words, the students represented by these cells have maintained their acquisition of grade appropriate academic skills, though they are still achieving at levels below their non-ESL counterparts. Positive relationships suggest that the school context has accelerated their acquisition of skills (i.e., catching up) whereas negative relationships indicate a deceleration in skill acquisition (i.e. falling further behind).

As a result of the nature of analyses conducted, the predictive effect sizes derived from school survey data may also be overestimated. Caution in interpretation is warranted.

[18] K-6 schools that appeared to be responding based on the ESL context for the entire school were excepted from this criteria. An assumption was made that similar environmental contexts would apply across both the K-3 and 4-6 cohorts.

B4.1 Summary of Individual-Level Predictors of Remaining in the Alberta Education System

A summary of the significant predictors of remaining in the Alberta Education system is provided in Table 34. To simplify the presentation of results only those effects that demonstrated a discernable pattern of findings across grade cohorts are presented and discussed below. According to the 2005-2006 Funding Manual for School Authorities the following definitions are used:

301 – Foreign-born funded ESL students
303 – Canadian born funded ESL students
302 – Non-funded ESL students[19]

Table 34. Probability of Remaining in the Alberta Education System

PREDICTORS	Grade 3	Grade 6	Grade 9	Grade 12
Canadian born (in comparison to foreign born)		↑		↓↓↓
More years as 301 student	↑↑		↑↑	↑↑↑↑
More years as 302 student			↓↓	↓↓
More years as 303 student	↓		↓↓	↓↓↓↓
Delay between entering the system and being identified as ESL	↑	↑	↓	↓↓
Number of years former ESL funded (301 or 302) student has been in system as non funded	↓	↓↓	↓↓↓	↓↓↓
Later age at entry into Alberta system	↑			↑↑
Later grade at entry in Alberta system	↑		↑↑	↑↑↑

All indicated effects are significant. Only those effects with a relatively consistent pattern of results across age cohorts are reported. The number of arrows indicates effect size. ↑ = .050-.099, ↑↑ = .10 - .19, ↑↑↑= .20 - .29, ↑↑↑↑ = .30-.39, ↑↑↑↑↑ = .40-.49.

Predictor: **Student Type**

Key Finding — In comparison to foreign-born funded ESL students (code 301), Canadian-born funded ESL students (code 303) are more likely to remain within the Alberta Education system to grade 6 but less likely to remain within the Alberta Education system to grade 12. The longer foreign-born ESL students are funded (code 301) the more likely they are to remain in the Alberta education system. In contrast, the more years students receive funding as a Canadian-born ESL student (code 303) the less likely they are to remain within the Alberta education system. In addition, the more years a student is coded as non-funded (code 302) the less likely they are to remain in the Alberta Education system.

Predictor: **Delayed Identification of ESL Status**

Key Finding — The longer the delay in identification of ESL status the more likely students will remain within the Alberta Education system in the earlier grade levels, but the less likely they will remain within the Alberta Education system at later grades. The effect sizes for later grades are more robust.

Possible Explanation/Implication: These results indicate that early identification is important for the long-term retention of ESL students.

Predictor: **Termination of Funded Status**

Key Finding — The longer formerly funded Canadian- and foreign-born ESL students are

[19] International students on study permit were not included in any analyses.

in the system without funding support, the less likely they are to remain in the Alberta Education system at junior and senior high levels.

Possible Explanation/Implication: Results indicate that continued funded support may be necessary to prevent ESL student from leaving the education system.

Predictor: **Age/Grade at Entry**

Key Finding In comparison to ESL students entering the system at younger ages, older ESL students are more likely to remain within the Alberta Education system.

Possible Explanation/Implication: Given the longitudinal nature of this study is it not unexpected that those entering the system at later ages would have remained in the system at the critical outcome periods identified (i.e., In grades 3, 6, 9 and 12). These students would have had less opportunity to exit the system then their younger age at entry cohorts.

B4.2 Summary of Individual-Level Predictors of Moving Forward with Age Peers

A summary of the significant predictors of the likelihood of ESL students moving forward with age peers is presented in Table 35. To simplify the presentation of results only those effects that demonstrated a discernable pattern of findings across grade cohorts are presented and discussed.

Table 35. Probability of Moving Forward with Age Peers

PREDICTORS	Grade 3	Grade 6	Grade 9	Grade 12
Canadian-born (in comparison to foreign-born)	↓		↓↓	↓↓↓↓
Years coded as 301 student			↑	↑↑↑
Years coded as 302 student			↓↓	↓↓
Number of years former ESL funded student has been in system as non-funded		↓	↓	↓↓
Later age of entry into Alberta system	↑	↓	↑↑	↑↑↑
Later grade at entry in Alberta system		↓	↑↑↑	↑↑↑↑
Probability of limited first language proficiency			↓↓	↓
Probability of having special needs			↓↓↓	↓↓↓↓↓

All indicated effects are significant. Only those effects with a relatively consistent pattern of results across age cohorts are reported. The number of arrows indicates effect size. ↑ = .050-.099, ↑↑ = .10 - .19, ↑↑↑= .20 - .29, ↑↑↑↑ = .30-.39, ↑↑↑↑↑ = .40-.49.

Predictor: **Student Type**

Key Finding Canadian-born funded ESL students (code 303) are less likely to be moved forward with their age peers than foreign-born funded ESL students (code 301) in almost all grades. The longer foreign-born ESL students are funded (code 301) the more likely they will be moved forward with their age peers at the senior and junior high levels. In contrast, the more years a student is coded as non-funded (302) the less likely they are to be moved forward with their age peers.

Predictor: **Termination of Funded Status**

Key Finding — The longer formerly funded Canadian- and foreign-born ESL students are in the system without funding support, the less likely they are to be moved forward with their age peers. This is particularly true at the senior high level.

Possible Explanation/Implication: Results indicate that continued funding support may be necessary to allow ESL students to keep pace with their age peers.

Predictor: **Age/Grade at Entry**

Key Finding — In comparison to ESL students entering the system at younger ages, older ESL students are more likely to be moved forward with their age peers. An exception to this happens for those entering in later elementary grades. For these students, the older they are at entry, the less likely they are to be moved forward with their age peers. These findings tend to be mirrored using grade at entry as a predictor.

Possible Explanation/Implication: The small, yet anomalous finding in the grade 6 cohort may be a function of elementary teachers being more reluctant to promote older ESL students into junior high when the student may still have significant English proficiency deficits.

Predictor: **Limited First Language**

Key Finding — In comparison to ESL students who are proficient in their first language, those with limited first language proficiency are less likely to be moved forward with their age peers in junior high and high school.

Predictor: **ESL with Special Needs**

Key Finding — In comparison to those ESL students without special needs, those with special are less likely to be moved forward with their age peers at junior and senior high.

B4.3 Summary of Individual Level Predictors of Completion of PAT/Diploma Exams

A summary of the significant predictors of PAT/DE completion is provided in Table 36. To simplify the presentation of results only those effects that demonstrate a discernable pattern of findings across grade cohorts are presented and discussed.

Table 36. Probability of PAT/DE Completion

	English				Math			
Grades →	G3	G6	G9	G12	G3	G6	G9	G12
PREDICTORS								
Canadian-born (in comparison to foreign-born)	↑		↓↓	↓	↑		↓↓↓	↓↓
More years as 302 student	↓	↓	↓			↓	↓↓	↓
More years as303 student	↑	↑	↓↓		↑	↑	↓↓	↓
Number of years former ESL funded student has been in system as non-funded			↑↑	↑↑			↑↑	↑↑
Delay between entering the system and being identified as ESL	↑	↓	↓	↓↓	↑	↓	↓↓	↓↓
Later age at entry into Alberta system	↓	↓	↓	↓↓	↓	↓		
Later grade at entry in Alberta system	↓↓	↓	↓	↓↓		↓		
Females (in comparison to males)	↑	↑		↑		↑		
Probability of limited first language proficiency			↓↓↓				↓↓↓	

	English				Math			
Grades →	G3	G6	G9	G12	G3	G6	G9	G12
PREDICTORS								
Probability of having special needs	↓↓			↓↓	↓↓			↓↓↓
Probability of requiring trauma counselling				↓↓				↓↓↓

All indicated effects are significant. Only those effects with a relatively consistent pattern of results across age cohorts are reported. The number of arrows indicates effect size: ↑ = .050-.099, ↑↑ = .10 - .19, ↑↑↑= .20 - .29, ↑↑↑↑ = .30-.39, ↑↑↑↑↑ = .40-.49

Predictor: **ESL Student Type**

Key Finding

In comparison to foreign-born ESL students, Canadian-born ESL students are at a greater disadvantage when it comes to remaining within the Alberta Education system, completing PATs, and achievement on PATs. The differences between foreign- and Canadian-born students are greatest at the junior and senior high levels. In addition, the longer students are coded as Canadian-born ESL students (code 303) the greater the disadvantage grows. Similarly, the longer students are identified as non-funded ESL students (code 302), the more likely they are to be disadvantaged when it comes to remaining within the Alberta Education system, moving forward in the system with age peers, completing PATs, and achieving on PATs. This is particularly true at the junior high level. In contrast, the longer students are coded as foreign-born ESL students (code 301) the more likely they are to remain within the Alberta Education system and move forward in the system with their peers, particularly in the later grades.

Possible Explanation/Implication: While further research is required, these findings suggest that Canadian-born ESL students may be experiencing more chronic language deficiencies than foreign-born ESL students. While foreign-born students remain at a disadvantage in comparison to non-ESL students, their language deficiencies may be more acute upon entry into the system, but become less profound (in comparison to Canadian-born ESL students) as they progress through the system.

Predictor: **Termination of Funded Status**

Key Finding

The longer it has been since an ESL student has had his/her funding terminated the more likely he/she is to complete PAT/DEs at the secondary level.

Possible Explanation/Implication: It is likely that the students who remain in the Alberta Education system and at an age appropriate grade level after funding termination are those who have reached a higher level of English proficiency and thus are more likely to complete PAT/DEs.

Predictor: **Delayed Identification of ESL Status**

Key Finding

The longer the delay in identification of ESL status the more likely a student is to complete PATs in early elementary, but the less likely he/she is to complete PAT/DEs in grade 6 and beyond.

Predictor: **Age at Entry / Grade at Entry**

Key Finding — Students entering the system at an older age and/or are admitted to a more advanced grade are less likely to complete their PAT/DEs in English than those entering at a younger age. In elementary grades the completion of math PATs are similarly affected.

Possible Explanation/Implication: There are two likely explanations for these results. The first is that the older the ESL student is at entry the less time he/she has to gain sufficient English proficiency to complete exams. The second is that these students are not completing exams for fear that school-level achievement results may be negatively impacted by their participation.

Predictor: **Gender**

Key Finding — In comparison to male ESL students, female ESL students are more likely to complete English PAT/DEs at most grade levels and the more likely they are to complete math in grade 6. These effects are very small though significant.

Predictor: **Limited First Language**

Key Finding — In comparison to those students with first language proficiency, those with limited first language proficiency appear to be less likely to complete PATs at the junior high level.

Predictor: **ESL with Special Needs**

Key Finding — In comparison to those ESL students without special needs, those with special needs appear to be less likely to complete PAT/DEs in both early elementary and senior high.

Predictor: **ESL Trauma Counselling**

Key Finding — In comparison to those ESL students who may not require trauma counselling, those who may require trauma counselling appear to be less likely to complete matriculation Diploma Exams in grade 12 English and math.

B4.4 Summary of Individual-Level Predictors of Achievement on PAT/Diploma Exams

A summary of the significant predictors of PAT/DE achievement levels is provided in Table 37. To simplify the presentation of results only those effects that demonstrate a discernable pattern of findings across cohorts are presented and discussed.

Table 37. Predictors of Achievement on PAT/Diploma Exams

	English				Math			
Grades →	G3	G6	G9	G12	G3	G6	G9	G
PREDICTORS								
Canadian born (in comparison to foreign-born)	↓	↓↓	↓↓↓		↓↓	↓↓	↓↓↓	↓
More years as 302 student		↓	↓			↓	↓↓	
More years as 303 student	↓↓	↓↓	↓↓↓		↓↓	↓↓	↓↓↓	
Number of years former ESL funded (301 or 302) student has been in system as non funded	↑	↑↑↑	↑↑↑	↑↑↑	↑	↑↑	↑↑	

	English				Math			
Grades →	G3	G6	G9	G12	G3	G6	G9	G12
PREDICTORS								
Delay between entering the system and being identified as ESL			↓↓			↓	↓↓	↓
Later age at entry into Alberta system			↓	↓↓↓	↑	↑	↑↑	
Later grade at entry in Alberta system			↓	↓↓↓	↑	↑	↑↑	
Females (in comparison to males)	↑↑	↑↑	↑↑	↑	↓	↓	↓	
Probability of limited first language proficiency	↓↓↓			↑↑↑↑	↓↓↓↓			
Probability of having special needs		↓↓		↓		↓↓		↓↓↓
Probability of limited formal schooling	↓↓↓				↓↓↓		↓↓	
Probability of lower English proficiency level	↓↓	↓↓				↓↓↓		
Probability of refugee status							↓↓	↓↓

All indicated effects are significant. Only those effects with a relatively consistent pattern of results across age cohorts are reported. The number of arrows indicates effect size: ↑ = .050-.099, ↑↑ = .10 - .19, ↑↑↑= .20 - .29, ↑↑↑↑ = .30-.39, ↑↑↑↑↑ = .40-.49.

Predictor: **ESL Student Type**

Key Finding — In comparison to foreign-born funded ESL students (code 301), Canadian-born funded ESL students (code 303) achieve at lower levels on PATs in grades 3, 6, and 9 in both English and math. In addition the longer ESL students are coded as Canadian-born funded the lower their achievement levels on PATs in most grade levels. The longer a student is identified as a non-funded ESL student the lower their achievement levels on PATs in later elementary and junior high.

Possible Explanation/Implication: Results indicate that Canadian-born funded ESL students (code 303) and non-funded ESL students (code 302) are at the greatest disadvantage among ESL students in the current education system in Alberta.

Predictor: **Termination of Funding**

Key Finding — The longer it has been since an ESL student has had his/her funding terminated the higher their PAT/DE exam scores. This is found across most grade levels and in both English and math.

Possible Explanation/Implication: It is likely that those ESL students who remain in the Alberta Education system and are moved forward with their age peers after funding termination are those who have reached a higher level of English language proficiency.

Predictor: **Delayed Identification of ESL Status**

Key Finding — Longer delays between ESL student's entering the Alberta education system and subsequently being identified as an ESL student are related to lower PAT/DE achievement levels, particularly in junior high.

Predictor: **Age at Entry / Grade at Entry**

Key Finding — In comparison to ESL students entering at a younger age, ESL students entering the system at an older age and/or grade level are performing better in mathematics in the earlier grade cohorts (3, 6, and 9) but less well in English in the later grade cohorts (9 and 12).

Possible Explanation/Implication: Older students are likely entering the system with more advanced mathematics skills as a result of mathematics instruction in their first language.

Predictor: **Gender**

Key Finding — In comparison to male ESL students, female ESL students are more like to achieve higher English PAT/DE test scores (particularly in grades 3 through 9). In comparison to female ESL students, male ESL students a more likely to achieve higher math PAT test scores. These later effects a not as strong as the female English achievement effects.

Predictor: **Limited First Language**

Key Finding — Compared with ESL students with first language proficiency, ESL studer with limited first language achieve less well on PATs in early elementary grades but better in high school on the grade 12 English Diploma Exam.

Possible Explanation/Implication: One possible explanation is that in the high school context, ESL students with higher first language proficiency may be socializing with others in their first language at the expense of acquiring increasing proficiency in English.

Predictor: **ESL with Special Needs**

Key Finding — In comparison to those ESL students without special needs, those with special needs appear to be achieving less well on PAT/DEs at both late elementary and senior high levels.

Predictor: **Limited Formal Schooling**

Key Finding — In comparison to those ESL students with a formal schooling backgroun those ESL students with limited formal schooling appear to be achievin less well on PATs at both early elementary and junior high levels.

Predictor: **Level of English Proficiency**

Key Finding — In comparison to those ESL students with a higher level of English proficiency, those ESL students with limited English proficiency are performing at lower achievement levels on PATs in the elementary grades.

Predictor: **Refugee Status**

Key Finding — In comparison to those students without refugee status, those with refug status appear to be achieving lower in math PAT/DE scores at the junio high and high school levels.

B4.5 Summary of School-Level Predictors of Improved Achievement of PAT Exams

The predictive results that focus on school contextual level variables focused only improve achievement over successive PAT examinations. Because baseline information does not exist for early elementary grades, contextual relationships could not be assessed at these grade levels. Also, due to a small sample size for the grade 12 cohort (less than 100), it w decided the results were too unstable to warrant discussion. The key findings are summarized in the Table 38.

Table 34. School Level Predictors of Improved Achievement on PAT Exams

	English		Math	
Grades →	G6	G9	G6	G9
PREDICTORS				
School Size				
Total number of students (including ESL)	↑↑	↑↑		↑↑
ESL Teacher Qualifications Training and Specialization				
Proportion of ESL designated /mainstream teachers with less ESL training		↓↓		
Proportion of ESL designated/mainstream teachers with ESL Diploma or Certificate				↑↑
Enhanced school funding of PD for ESL designated teachers	↑↑			
PD for ESL designated teachers available and funded by jurisdiction		↑↑		
MS teachers modify and adapt programs for ESL students		↓↓		
Funding and Supports				
Enhanced school funding of ESL resource materials	↑↑			
Enhanced school funding of interpreters / translators	↑↑			↑↑↑
Enhanced school funding of tutor support		↑↑		
Enhanced school funding of support staff/aides				↑↑
Jurisdictional Supports				
Higher number of jurisdictional supports	↑↑		↑↑	
Additional teaching staff available and funded by jurisdiction	↑↑		↑↑	
Additional support staff available and funded by jurisdiction			↑↑	
Interpreters/translators available and funded by jurisdiction			↑↑	
ESL Consultants available and funded by jurisdiction			↑↑	
Other professionals available and funded by jurisdiction			↑↑	
Reception Centre available and funded by jurisdiction	↑↑			
First language resource materials available and funded by jurisdiction		↑↑		
Tutor support available and funded by jurisdiction				↑↑
ESL Teams				
ESL team in school	↑↑	↑↑		
ESL designated teachers represented on team	↑↑	↑↑		
School counselors represented on team		↑↑		
ESL Team Functioning Score (1-5)	↑↑↑			
ESL Class Structure				
Half-day self-contained			↓↓↓	
Pull-out – School-based		↑↑		↓↓↓
In-class ESL support			↑↑↑	
ESL Timetabling				
Unstructured timetabling		↓↓↓		↑↑↑
Semi-structured timetabling		↑↑		
Structured timetabling			↑↑	↓↓↓
ESL Student Grouping				
Extent to which able to group students by age	↑↑		↑↑	↑↑
Extent to which able to group students by English language proficiency			↑↑	
Extent to which students are grouped by proficiency in their first language	↓↓↓		↓↓	
ESL Resource Supports				
Informal peer mentor support (buddy system)		↑↑	↑↑	
ESL resource materials in English		↑↑↑		
Dual language ESL resources		↑↑		
Tutor support		↑↑↑		
Formal adult mentoring programs	↑↑			
Peer counselling			↑↑	
First language instruction in school		↓↓		
First language support				↓↓
Community worker support at school			↓↓	

Table 34. School Level Predictors of Improved Achievement on PAT Exams

	English		Math	
Grades →	G6	G9	G6	G9
PREDICTORS				
ESL Instructional Methods*				
Mentoring approaches			↑↑	
Integrated language and content instruction		↑↑		
Modification approaches		↑↑		
Balanced Literacy	↓↓	↑↑	↓↓	
Realia (Real Life)	↓↓↓		↓↓	
Language Experience	↓↓	↓↓	↓↓	
Phonemic Awareness	↓↓			↓↓
Diagnostic and Assessment Depth and Quality				
Number of different diagnostic assessment types used			↑↑	
Number of language skill dimensions assessed	↑↑			
Assessment reliability			↑↑	
Assessment comprehensiveness		↑↑	↑↑	
Assessment accuracy				
Assessment application	↑↑		↑↑	↑↑
Current capacity to have formal first language assessments conducted on ESL students			↑↑	
Collection of ESL student contextual information		↑↑		
School communication support of ESL parents		↑↑		

*The Calgary Board of Education's English as a Second Language: English Language Proficiency Benchmarks (2005) provides a summary description of the instructional methods discussed in this report.
All indicated effects are significant. The number of arrows indicates effect size: ↑ = .050-.099, ↑↑ = .10 - .19, ↑↑↑= .20 - .29, ↑↑↑↑ = .30-.39, ↑↑↑↑↑ = .40-.49.

Predictor: **School Size**

Key Finding — In comparison to those ESL students in schools with smaller student populations, ESL students in schools with larger student populations demonstrate greater improvements in achievement levels in elementary and junior high school.

Predictor: **ESL Teacher Qualifications, Training and Specialization**

Key Findings — The results indicate that at the junior high level, schools with a higher proportion of teachers with more advanced ESL credentials may be more effective in improving ESL student achievement levels in math. Schools with a higher proportion of teachers with less ESL training and those that rely on mainstream teachers to modify and adapt programs for ESL students may be having an adverse impact on English language achievement. Elementary schools that allocate more per student expenditures to professional development for ESL designated teachers, and junior high schools with access to PD for ESL designated teachers through the jurisdiction, indicate improved ESL student achievement levels.

Possible Explanation/Implication: Overall, it appears that ESL teachers with more training, credentials, and specialization are more effective in supporting ESL student achievement.

Predictor: **ESL Funding and Resource Distribution**

Key Finding — Elementary schools that allocate more per student expenditures to ESL resource materials and interpreters and/or translators have a positive

impact on improving ESL student achievement levels. At the junior high level, results indicate that resource allocation to support staff, interpreters and/or translators, as well as tutor support appear to have an impact on improving ESL student achievement.

Predictor: **ESL Jurisdictional Supports**

Key Finding — Overall, the number of jurisdictional supports provided to a school is predictive of improvement in achievement of ESL students in grade 6. Elementary schools that have jurisdictional support in the form of additional teaching staff, additional support staff, interpreters and/or translators, ESL consultants, other professionals (e.g., Speech Language Pathologists), and a Reception Centre, appear to positively influence achievement of ESL students. At the junior high level, results indicate that jurisdictional supports in the form of first language resource material and tutor support appear to be having a positive impact.

Predictor: **Team Structure and Functioning**

Key Finding — The presence of an ESL team has beneficial effects on improving English achievement at elementary and junior high school levels. Having designated ESL teachers on these teams appears most beneficial in elementary and junior high levels.

Evidence also suggests that higher team functioning may be an important predictor of improvement in achievement of ESL students. Those schools that reported higher levels of team functioning also reported greater gains in achievement of ESL students at the elementary level.

Predictor: **ESL Class Structure**

Key Finding — A half-day self-contained (sheltered) class model may be the least appropriate for elementary ESL students. Students in schools using this model show deterioration in math achievement.

For junior high students a pull-out school-based approach was related to improvement in English achievement but deterioration in math. In-class ESL support on the other hand was not related to changes in English achievement levels, but was positively related to improvement in math.

Possible Explanation /Implication: Results for the half-day self-contained model at the elementary level and the pull-out model at the junior high level indicate that these less integrated models may be focusing to a greater extent on English proficiency at the expense of subject matter content. Results indicate that students would benefit most from integrated classroom models during the school day with additional sheltered instruction for English proficiency (i.e., an extended school day).

Predictor: **Timetabling**

Key Finding — Elementary ESL students may benefit most from a structured timetabling approach as indicated by a positive relation to achievement levels in math.

At the junior high level an unstructured timetabling approach appears to be related to improvements in math achievement but deterioration in English.

A semi-structured approach appears to be related to improvements in English achievement, while a structured timetabling approach appears to be related to deterioration in math.

Possible Explanation /Implication: Results suggest that a semi-structured approach may be the most appropriate for most students, but that an unstructured approach may be more appropriate for students with higher levels of English proficiency.

Predictor: **Grouping**

Key Finding

Schools that group ESL students by age indicate improved achievement at the elementary and junior high levels. At the elementary level, grouping students by English language proficiency also appears to have beneficial effects on math achievement.

Grouping students by proficiency in first language appears to be related to deterioration in achievement levels at the elementary level.

Possible Explanation /Implication: Overall, these results appear to support grouping by age in most circumstances.

Predictor: **ESL Resource Supports**

Key Finding

Elementary schools that use peer counseling, formal adult mentoring and informal peer mentoring supports, indicate improved achievement of ESL students.

At the junior high level, schools that use English ESL resource materials, dual language resource materials, tutor supports, and informal peer mentoring supports, indicate improved achievement of ESL students. In contrast, at the junior high level, schools that use first language instruction, first language support, and community worker support, indicate deterioration in achievement in English and/or math.

Possible Explanations /Implications: Results indicate that at the elementary level, peer counseling, formal adult mentoring and informal peer mentoring supports are effective support strategies. At the junior high level, many supports appear to be effective but supports that result in time away from subject matter content appear to negatively influence achievement of ESL students.

Predictor: **Instructional Methods**

Key Finding

Elementary schools that use mentoring instructional approaches indicate improved achievement of ESL students. In contrast, elementary schools that use Balanced Literacy, Language Experience, Phonemic Awareness, and Realia approaches, indicate deterioration in achievement of ESL students.

At the junior high level schools that use Balanced Literacy, Integrated Language and Content Instruction, and modification approaches indicate improved achievement of ESL students. In contrast, schools that use Language Experience and Phonemic Awareness approaches indicate

deterioration in achievement of ESL students.

Possible Explanations /Implications: Mentoring approaches appear to be effective in the elementary grade levels. More ineffective methods appear to be Balanced Literacy, Language Experience and Realia.

At the junior high level, Balanced Literacy, Integrated Language and Content Instruction, and modification approaches appear to be most effective, while Language Experience, and Phonemic Awareness appear less effective.

Predictor: **Diagnostic and Assessment Characteristics**

Key Finding Overall, the quality and depth of diagnostics and assessment applied to ESL students is predictive of improved achievement outcomes in both English and math across the different grade cohorts. In addition, the number of data elements collected to understand ESL students' current and historical demographic profile was predictive of improved academic achievement level in English in junior high.

Possible Explanation /Implication: It would appear that accurate and in-depth assessments are important characteristics for ESL student achievement. The collection of demographic and contextual information may also help schools tailor instruction to meet specific needs of ESL students.

Predictor: **School Communication Support of ESL Parents**

Key Finding The ability of schools to provide information to parents of ESL students using first language or simple English was predictive of improved English academic achievement among ESL students in junior high.

Possible Explanation /Implication: Effective communication with parents of ESL students appears to be an important facilitator of ESL student success.

C. STUDY PARTICIPANTS' RECOMMENDATIONS

The following three groups were asked to identify recommendations to address the needs of ESL students. The three groups were experts/stakeholders, case study participants, and school principals who participated in the province-wide survey. Their recommendations are presented in their entirety in the tables on the following pages. In addition, where support could be identified from literature and from predictor variables, notation is made. (Please note that in the tables NA refers to Not Applicable or Not Addressed in this study.)

Below are listed 18 recommendations that reflect convergence across the three participant groups mentioned above as well as support from the literature and predictor variables.

1. Appropriate assessment tests for ESL students including psychological tests
2. Formalized assessment processes for ESL students
3. Standards for teaching requirements for teachers of ESL students
4. Collaborative research agenda with universities
5. Standardized program guidelines for ESL including junior high
6. Equitable support for all ESL students (those integrated into mainstream classes as well as those in segregated programs such as the Kanadier program)
7. Development of support programs for parents and students to work on at home
8. Revised funding structure for ESL relative to student need
9. Increased funding support for ESL (hiring of trained teachers and assistants, psychological assessment of ESL students, full-time ESL designated teachers, teacher training/professional development)
10. Maintained support for ESL students after they leave segregated ESL programs
11. Creation of a research and development team within the Ministry of Alberta Education
12. Collaboration with universities to offer more ESL programs in teacher education programs
13. Support for a cross-ministerial response to address the needs of ESL students
14. Increased parent involvement/voice in schools
15. Support for information sharing across jurisdictions
16. Maintained communication between Reception Centres and schools
17. Development of assessment processes for ESL students with learning disabilities
18. Effort to reduce attrition of ESL students

Source of Recommendation			Assessment and Diagnostics			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Support Indicated in the Literature	Supported by Predictor Variable(s)
	√	√	Identify appropriate assessment tests for ESL students	Alberta Education	√	√
	√	√	Identify ESL students through formalized assessment processes	Jurisdictions & Schools	√	√

Source of Recommendation			Programs			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Support Indicated in the Literature	Supported by Predictor Variable(s)
	√		Re-examine age-based placement of ESL students to address those students who slip through the cracks	Jurisdiction		NA
√		√	Revisit requirements for high school completion for ESL students	Alberta Education		NA
√			Explore alternatives to age-based assessment	Alberta Education	NA	NA
√		√	Revise age-based requirement for ESL students pursuing adult education (that is, eliminate 1 year out of school requirement)	Alberta Education	NA	NA
√			Revise coding of ESL students with special needs	Alberta Education	NA	√
√			Require Boards to be more accountable for student achievement	Alberta Education	NA	√
√			Set standards for teaching requirements for teachers of ESL students	Alberta Education	√	√

Source of Recommendation			Programs			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Support Indicated in the Literature	Supported by Predictor Variable(s)
	√	√	Re-examine provisions for PATs (i.e., provide more time for writing)	Alberta Education	NA	NA
√			Ensure consistent application of accommodations for PATs	Alberta Education & Schools	NA	NA
√			Provide support for schools to continue IPPs for ESL students	Alberta Education	√	NA
√			Track early leavers	Alberta Education	NA	NA
√			Revisit recommendations in Learning Commission's Report	Alberta Education	NA	NA
√			Work with universities to develop a collaborative research agenda for ESL (e.g., to explore the influence of gender and family pressure on early leaving; the influence of various teaching strategies on achievement of ESL students)	Alberta Education	√	√
√			Support exploration of different models of delivery	Alberta Education	Available	Available
	√	√	Develop standardized ESL curriculum (e.g., for junior high)		√	√
	√		Modify curriculum for grade 9	School		NA
	√		Develop programs in art and music for Aboriginal ESL students at high school level to keep them in school	Alberta Education	NA	NA
	√		Tailor academically-focused and trades-focused programs for ESL students	Alberta Education	NA	NA
	√	√	Maintain program for Kanadier (Mexican Mennonite) including Liaison Worker to encourage enrolment	Jurisdiction	NA	NA
	√		Create district sites for ESL	Jurisdiction		
	√		Offer high German option	School	√	NA

Source of Recommendation			Programs			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Support Indicated in the Literature	Supported by Predictor Variable(s)
	√		Continue to support dual track programming (German and English)	School	√	NA
	√		Provide equitable support for both Kanadier and integrated ESL students	School	√	√
	√		Support pull-out programs for ESL students in elementary (northern school)	School		
	√		Develop support programs for parents/students to work on at home (northern school)	School	√	√

Source of Recommendation			Resources			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Support Indicated in the Literature	Supported by Predictor Variable(s)
√	√	√	Change funding structure for ESL (i.e., revisit 5-year funding cap; allow for intermittent re-coding to accommodate students who plateau; consider March 1 as cut-off date rather than Sept 30)	Alberta Education & Jurisdiction	√	√
√		√	Provide increased funding for ESL: • extend living allowance support upon arrival	AE	√	√
√		√	• preschool/kindergarten for socially disadvantaged ESL students	AE	NA	NA
√		√	• pre-literacy and transition programs	AE	√	NA
√		√	• psychological assessment	AE	√	√
√			• academic incentives	AE	NA	NA

Source of Recommendation			Resources			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Support Indicated in the Literature	Supported by Predictor Variable(s)
√	√		• increased financial support to jurisdictions with large numbers of ESL student	AE, Jurisdictions	√	
√	√	√	• technology	AE, Jurisdictions	NA	NA
√	√	√	• resources linked to curriculum	AE, Jurisdictions	√	NA
√		√	• hire readers for PATs	AE	NA	NA
	√	√	Cap ESL class sizes at 15	Jurisdictions, School	NA	NA
	√	√	Maintain support for ESL students after they leave segregated programs	School	√	√
	√	√	Create sheltered ESL classes at each level in appropriate spaces	School		
	√		Establish Daycares in northern Alberta	Jurisdictions	NA	NA
	√	√	Designate schools as ESL schools	Jurisdictions		
√		√	Create a research and development team at Ministry level	Alberta Education	√	√
√			Work with other departments in Alberta Advanced Education to create additional support at universities for ESL students	Alberta Education	NA	NA
√		√	Work with universities to establish ESL as a priority area—to offer more courses in ESL (multicultural education)	AE	√	√
√			Support multi-departmental response to address the needs of ESL students (e.g., Alberta Health and Wellness)	Alberta Education	√	√
√			Work with the federal government to gain increased funding support to address settlement issues and social development issues of newcomers, particularly refugee families	Alberta Education	NA	NA

Source of Recommendation			Resources			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Support Indicated in the Literature	Supported by Predictor Variable(s)
√		√	Increase public awareness of the value and contributions of immigrants and ESL students to this country	Alberta Education	√	NA

Source of Recommendation			Professional/Para-professional Assistance for Optimizing Achievement of ESL Students			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Supported in the Literature	Supported by Predictor Variable(s)
√	√	√	Provide increased funding for ESL: • hire trained staff (teachers & assistants)	Alberta Education, Jurisdictions School	√	√
	√	√	• maintain continuity in ESL teaching staff	School	NA	NA
	√	√	• continue to fund full-time ESL designate teacher	School	√	√
	√	√	• fund teacher collaboration	School	NA	NA
√	√	√	• teacher training (e.g., CBE Benchmarks)	Alberta Education, Jurisdictions, School	√	√
√	√	√	• teacher professional development	Alberta Education, Jurisdictions	√	√
	√	√	Hire more ESL specialists	Alberta Education,	√	√
	√		Collaborate with universities to create practica in ESL	Jurisdictions	NA	NA
	√		Increase teacher awareness of accommodations for PATs	Alberta Education,	NA	NA
	√		Provide professional development on specific cultures (e.g., Mexican Mennonite)	Jurisdictions	√	√

Source of Recommendation			Professional/Para-professional Assistance for Optimizing Achievement of ESL Students			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Supported in the Literature	Supported by Predictor Variable(s)
	√	√	Provide training for teachers and ESL assistants	Jurisdictions	√	√
	√	√	Provide PD during school hours	Jurisdictions	NA	NA
	√		Hire parent paraprofessionals who speak the language (e.g., low German)	School	NA	NA
	√	√	Continue to wok on encouraging/increasing parent involvement	School	√	√
	√		Dedicate surplus funds to teacher assistants	School	NA	NA

Source of Recommendation			Data Requirements at School, Jurisdiction and Ministry Levels to Facilitate Assessment of the Relationship Between PAT and English Language Proficiency (Benchmarking Purposes)			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Supported in the Literature	Supported by Predictor Variable(s)
√		√	Support sharing across jurisdictions	Alberta Education,	√	√

Source of Recommendation			Diagnostic Assessment			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Supported in the Literature	Supported by Predictor Variable(s)
	√	√	It is important for Reception Centres to maintain communication with schools to whom students are placed	Jurisdictions	√	√

Source of Recommendation			Diagnostic Assessment			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Supported in the Literature	Supported by Predictor Variable(s)
	√		Develop assessment processes for ESL students with learning disabilities	Alberta Education	√	√

Source of Recommendation			Cross-cultural Sensitivity			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Supported in the Literature	Supported by Predictor Variable(s)
√	√	√	Create a mechanism for parents of ESL students to have a voice in schools	Jurisdictions	√	√
√	√	√	Promote and build awareness among teachers and community of needs of ESL students and their families	Jurisdictions	√	NA

Source of Recommendation			Psychological Impact of Pre-migration or Migration Experiences Such as Post-Traumatic Stress			
Stakeholders / Experts	Case Study Participants	Survey (Principals)	Recommended Action	Who Should Be Responsible	Supported in the Literature	Supported by Predictor Variable(s)
√		√	Psychological testing	Jurisdictions	√	NA
	√		Identify appropriate tools for psychological assessment	School	√	√

Source of Recommendation	Increase in Refugees

Source of Recommendation: Stakeholders / Experts	Source of Recommendation: Case Study Participants	Source of Recommendation: Survey (Principals)	Recommended Action	Who Should Be Responsible	Supported in the Literature	Supported by Predictor Variable(s)
√		√	Psychological testing	Jurisdiction	√	NA
	√	√	Develop strategies to increase parent involvement	School	√	NA

Source of Recommendation: Stakeholders / Experts	Source of Recommendation: Case Study Participants	Source of Recommendation: Survey (Principals)	Learners with Limited Literacy and Formal Schooling Recommended Action	Who Should Be Responsible	Supported in the Literature	Supported by Predictor Variable(s)
	√		Address home schooling of ESL students in southern Alberta	Alberta Education	NA	NA
	√	√	Develop strategies to increase parent involvement	School	√	√
	√	√	Work to reduce attrition of ESL students	School	√	√

CONSULTANT RECOMMENDATIONS

Howard Research makes the following recommendations:

RECOMMENDATIONS FOR ALBERTA EDUCATION

Recommendation #1 – Re-examine the current funding structure for K-12 ESL.

Rationale:

Predictive analyses conducted in this study indicate that the longer it has been since funding for ESL students has been terminated, the less likely they are to remain in the Alberta Education school system and at grade level if they are still in the school system. ESL students do not complete Provincial Achievement Tests with the same frequency or level of success as their English-proficient peers. Data from case studies and experts/stakeholders indicate that ESL students who enter the system at junior and senior high ages experience significant challenges to learning English and completing diploma requirements within the five-year window of additional funding support. Data from the predictive analyses also suggest that those students with limited first language proficiency, special needs, lower English proficiency levels, or having refugee status may require additional ESL instructional supports.

A more flexible approach needs to be developed to determine appropriate level of funding to match level of proficiency in English that also takes into account other influencing factors such as socioeconomic status, years of prior formal schooling, and proficiency in first language.

Note: Recommendation #1 is supported by Study Participants' Recommendations #6, #8 and #10.

Recommendation #2 – Develop a recommended list of diagnostic and assessment instruments appropriate for use with K-12 ESL students to improve consistency and standardization in assessing, interpreting and reporting test results.

Rationale:

Predictive analyses findings indicate that Schools that report using high quality English proficiency diagnostic and assessment tests, along with comprehensive tracking processes, have ESL students who demonstrate greater gains in academic achievement. A recommended list of diagnostic and assessment instruments would help to achieve accurate and consistent placement of ESL students across jurisdictions. To facilitate determination of the impact of various instructional strategies on achievement of ESL students, a core set of information needs to be collected uniformly over time—preferably electronically.

Data collected in this study indicate great variability with respect to tools and processes used to assess English proficiency of ESL students as well as in the type and depth of

information collected on ESL students. A general gap in quality instruments normed on Alberta students is reported.

Note: Recommendation #2 is supported by Study Participants' Recommendations #1, #2, #15 and #17.

Recommendation #3 – Develop K-12 ESL proficiency standards and guidelines for instructional strategies articulated with the Alberta Program of Studies.

Rationale:

Predictive analyses findings from this study indicate that schools that report using structured methods of instruction for ESL students have ESL students who demonstrate greater gains in academic achievement. Few schools reported having comprehensive plans for ESL instruction. Case study schools, experts and stakeholders reported concern about lack of a province-wide curriculum for K-12 ESL. Junior high is seen as a particular gap.

Foundational and seminal work in ESL is underway in some school jurisdictions with respect to ESL instruction and benchmarking student progress. Alberta Education and school jurisdictions could build on this existing work to develop guidelines and suggested approaches and strategies for ESL instruction that are articulated across grade levels and linked to the Alberta Program of Studies. Resource support for development and implementation of the guidelines will be required at both provincial and jurisdictional levels.

Note: Recommendation #3 is supported by Study Participants' Recommendations #5. This recommendation is also supported by Alberta's Commission on Learning recommendation #52: *Create provincial proficiency standards for assessing ESL students, students who are not proficient in English, and French language upgrading students, and provide funding until students reach the standard.*

RECOMMENDATIONS FOR SCHOOL JURISDICTIONS

Recommendation #4 – Ensure that K-12 ESL students have sufficient support and time to learn English and subject matter content.

Rationale:

Previous research indicates that 5 to 7 years are required for ESL students to gain full proficiency in English. While conversational English can be learned fairly quickly, it takes much longer to learn cognitive skills. If a single model of instruction is used, an integrated model appears most supportive of ESL student achievement in English and math. Sheltered models appear inappropriate at the elementary level and may lead to deterioration in math. At the junior high level, pull-out models appear to lead to improvement in English but deterioration in math, while in-class support models appear to lead to improvement in math but deterioration in English.

Previous research also indicates that instruction in the ESL student's first language (L1) supports acquisition of the second language (L2). In order for a student whose first language is English to gain proficiency in a second language, 1.5 to 4.5 hours of instruction per week

are required (doubling that amount if advanced proficiency is desired). ESL students in Alberta schools could benefit from instruction in their first language. However, introducing the range of first languages of ESL students into the school day would have significant impact on resources and timetabling. Elongating the school day to provide more time for students to learn both English and subject matter content would likely have similar impact. Therefore, other alternatives need to be explored such as classes for ESL students held during the summer months or weekends. Jurisdictions should also explore ways in which they could work more closely with community-based agencies and organizations to create formal and informal opportunities for ESL students to learn and maintain their first language in environments that support their interaction with age peers and adults beyond their own immediate families.

Note: Recommendations #4 is supported by Study Participants' Recommendations #6, #8 and #10.

Recommendation #5 – Provide more professional development opportunities for practicing teachers and teacher assistants.

Rationale:

Predictive analysis findings from this study indicate that a positive relationship exists between more highly qualified and trained staff and improvements in achievement in ESL students. Research also supports this finding. Currently, schools report that 64% of mainstream teachers who teach ESL students have no training in ESL. Only 14% of schools reported that ESL designated teachers have a diploma, certificate or degree in ESL.

Professional development programs for practicing teachers and teacher assistants need to be developed in collaboration with universities, colleges, and training institutes to develop a comprehensive and articulated in-service program that leads to certification in ESL (e.g., second language acquisition, cultural competence, diagnosis and assessment). Professional development opportunities need to be made affordable and accessible to practicing teachers and teacher assistants. Options for electronic delivery and self-study should be explored. Incentives to encourage teachers to engage in ESL professional development opportunities should be explored (e.g., bursaries).

Note: Recommendation #5 is supported by Study Participants' Recommendations #9 and #3.

RECOMMENDATIONS FOR UNIVERSITIES AND SCHOOL JURISDICTIONS

Recommendation #6 – Create more opportunities for inclusion of K-12 ESL-related courses in teacher education programs and increase placement opportunities for student teachers in schools with large numbers of ESL students.

Rationale:

Predictive analysis findings from this study indicate that a positive relationship exists between more highly qualified and trained staff and improvements in academic achievement by ESL students. Research also supports this finding. Data from case studies and experts/stakeholders indicate that pre-service teachers are limited in the number and breadth of ESL-related courses that can be included in their undergraduate programs.

Further, data indicate that schools with large numbers of ESL students are reluctant to take on the responsibility of student teachers given the added burden on ESL teachers.

To address the shortage of teachers who are skilled and qualified in ESL, universities and school jurisdictions should engage in discussions with Alberta Education and Advanced Education and possibly other Ministries to examine the creation of appropriate programs and possibly additional placement opportunities for undergraduate students who are interested in pursuing programs in ESL. This would align with the province's strategy of supporting immigrants and immigration to Alberta.

Additionally, incentives may need to be developed for schools with large numbers of ESL students to accommodate student teachers and, with the university, derive mutual benefit from that involvement.

Note: Recommendation #6 is supported by Study Participants' Recommendations #3 and #12.

Recommendation #7 – Develop a research agenda that addresses priority questions and issues related to K-12 ESL in Alberta.

Rationale:

Data from this study indicate that Canadian-born ESL students are not achieving as well as foreign-born ESL students. This situation is untenable for Alberta and for Canada. Further research needs to be conducted to understand why Canadian-born ESL students are achieving at lower levels than their foreign-born counterparts, and why they are leaving the system earlier.

Currently, no schools report following ESL students who leave school early. Alberta-based research provides some insight into reasons for early leaving. This and other important questions need to be addressed and may form a research agenda that could also include, for example:

- Comparison of various instructional strategies across jurisdictions linked to achievement of ESL students;
- Development of diagnostic and assessment tools and processes normed on Alberta students;
- Identification of diagnostic and assessment tools and processes for ESL students with special needs; and
- Longitudinal tracking of ESL high school completions, post-secondary completion and employment levels.

Note: Recommendation #7 is supported by Study Participants' Recommendations #4 and #11.

RECOMMENDATIONS FOR EDUCATION AND ADVANCED EDUCATION

Recommendation #8 – Explore transition options for ESL students to complete high school requirements.

Rationale:

Many ESL students require an additional year(s) beyond the age of 20 to complete diploma requirements. Consideration should be given to creating a mechanism that supports continuous enrolment of ESL students in a high school or post-secondary setting to allow them time to complete high school and to avoid the current year-long wait ESL students experience as they transition from high school to post-secondary institutions.

Note: Recommendation #8 is supported by Study Participants' Recommendation #13.

Appendix A

ESL STUDENT TYPE

Funding for Alberta Education has established three codes, 301, 302 and 303. According to the 2005-2006 Funding Manual for School Authorities the following definitions are used:

301 – Foreign-born funded ESL students
303 – Canadian-born funded ESL students
302 – Non-funded ESL students

ESL student type (code 301– Foreign-born funded, code 302 Non-funded, code 303 Canadian-born funded) was identified through a historical analysis of each student's codes over the years of available data. Students who were identified as any of the three student types at any time over their academic career were considered ESL students for all predictive analyses. In the case of inconsistent coding (i.e., an ESL student being coded as both a code 301 and a code 303 in different years) the most frequently used code was applied to identify the ESL student type[20]. An overall description of the ESL student types and comparisons to non-ESL students are provided in Tables 34 through 37 to provide an overall context from which to interpret the results and establish how ESL students in Alberta fair in comparison to the non-ESL student population.

In general, these tables indicate that non-ESL students tend to maintain enrolment in the system, maintain enrolment at grade level, complete PATs, and achieve at higher levels than ESL students at most grade levels. In addition, foreign-born ESL students (coded 301) tend to have greater success in terms of these outcomes than Canadian born ESL students (coded 301). Non-funded ESL students appear to be at the greatest disadvantage at being maintained in the Alberta Education system and at grade level.

[20] The percentage of ESL students with inconsistent coding was 3.7%, 6.5%, 5.0% and 2.7% for grade cohorts 3, 6, 9, and 12 respectively.

Table 34.ESL and Non-ESL Student Outcome Profiles: Grade 3 Cohort

	ESL Status										Significant Differences			
	ESL 301		ESL 303		301 or 303		ESL 302		No ESL Status		301	303	302	Non-ESL
	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	(A)	(B)	(C)	(D)
Maintained Enrolment to 2003/04														
Alberta System	1,270	96.6%	3,128	97.3%	4,398	97.1%	36	100.0%	36,262	96.6%				
At Grade Level	1,270	90.7%	3,128	83.5%	4,398	85.6%	36	83.3%	36,262	86.9%	B D			B
PAT Writing Status: PAT Completion Rates (Grade 3's 03/04 only)														
English	1,152	84.8%	2,611	89.5%	3,763	88.1%	30	76.7%	31,512	91.0%		A		A C
Math	1,152	85.4%	2,611	89.7%	3,763	88.4%	30	76.7%	31,512	91.5%		A		A B C
PAT Achievement Scores: Writers Only (Grade 3's 03/04 only)														
English	977	66.78	2,337	64.35	3,314	65.07	23	63.74	28,685	70.50	B			A B
Math	984	74.48	2,341	69.55	3,325	71.01	23	75.47	28,832	76.98	B			A B
PAT Achievement Scores: Writers Only - Deviation from Non-ESL Students (Grade 3's 03/04 only)														
English	977	-3.72	2,337	-6.15	3,314	-5.44	23	-6.76	28,685	0.00	B			A B
Math	984	-2.50	2,341	-7.43	3,325	-5.97	23	-1.51	28,832	0.00	B			A B
PAT Achievement Standard Acceptable and Excellence : Writers Only (Grade 3's 03/04 only)														
English	977	86.4%	2,337	81.9%	3,314	83.2%	23	78.3%	28,685	91.5%	B			A B
Math	984	87.1%	2,341	81.6%	3,325	83.2%	23	91.3%	28,832	90.4%	B			A B
PAT Excellence Standard: Writers Only (Grade 3's 03/04 only)														
English	977	12.0%	2,337	9.0%	3,314	9.9%	23	13.0%	28,685	17.5%				A B
Math	984	29.0%	2,341	19.3%	3,325	22.2%	23	26.1%	28,832	31.1%	B			B

Note: Results are based on two-sided tests assuming equal variances with significance level 0.05. For each significant pair, the key of the smaller category appears under the category with larger mean. Tests are adjusted for all pairwise comparisons within using the Bonferroni correction.

Table 35. ESL and Non-ESL Student Outcome Profiles: Grade 6 Cohort

	ESL Status										Significant Differences			
	ESL 301		ESL 303		301 or 303		ESL 302		No ESL Status		301	303	302	Non-ESL
	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	(A)	(B)	(C)	(D)
Maintained Enrolment to 2003/04 (Grade 9's 03/04 only)														
Alberta System	1,572	93.2%	2,464	96.7%	4,036	95.3%	26	96.2%	37,285	95.8%		A		A
At Grade Level	1,572	89.8%	2,464	90.4%	4,036	90.2%	26	76.9%	37,285	93.6%		C		A B C
PAT Writing Status: PAT Completion Rates (Grade 6's 03/04 only)														
English	1,411	88.1%	2,228	87.3%	3,639	87.6%	20	90.0%	34,913	91.1%				A B
Math	1,411	87.7%	2,228	86.7%	3,639	87.1%	20	85.0%	34,913	90.5%				A B
Science	1,411	88.7%	2,228	86.1%	3,639	87.1%	20	90.0%	34,913	91.1%				A B
Social Studies	1,411	88.5%	2,228	86.0%	3,639	87.0%	20	90.0%	34,913	91.0%				A B
PAT Achievement Scores: Writers Only (Grade 6's 03/04 only)														
English	1,243	65.12	1,944	60.83	3,187	62.50	18	66.50	31,795	68.92	B			A B
Math	1,237	72.09	1,931	65.05	3,168	67.80	17	69.94	31,606	71.57	B			B
Science	1,251	65.34	1,918	59.05	3,169	61.53	18	64.11	31,822	68.20	B			A B
Social Studies	1,249	67.00	1,916	59.98	3,165	62.75	18	66.89	31,760	68.97	B			A B
PAT Achievement Scores: Writers Only - Deviation from Non-ESL Students (Grade 6's 03/04 only)														
English	1,243	-3.80	1,944	-8.09	3,187	-6.42	18	-2.42	31,795	0.00	B			A B
Math	1,237	0.52	1,931	-6.52	3,168	-3.77	17	-1.63	31,606	0.00	B			B
Science	1,251	-2.87	1,918	-9.15	3,169	-6.67	18	-4.09	31,822	0.00	B			A B
Social Studies	1,249	-1.97	1,916	-8.99	3,165	-6.22	18	-2.08	31,760	0.00	B			A B
PAT Achievement Standard Acceptable and Excellence : Writers Only (Grade 6's 03/04 only)														
English	1,243	79.5%	1,944	72.3%	3,187	75.1%	18	83.3%	31,795	88.3%	B			A B
Math	1,237	85.0%	1,931	77.8%	3,168	80.6%	17	82.4%	31,603	87.0%	B			B
Science	1,251	84.5%	1,918	76.8%	3,169	79.8%	18	77.8%	31,820	89.7%	B			A B
Social Studies	1,249	85.6%	1,916	74.2%	3,165	78.7%	18	94.4%	31,760	87.8%	B			B
PAT Excellence Standard: Writers Only (Grade 6's 03/04 only)														
English	1,243	13.8%	1,944	6.9%	3,187	9.6%	18	16.7%	31,795	17.5%	B			A B
Math	1,237	28.8%	1,931	15.4%	3,168	20.6%	17	35.3%	31,603	23.4%	B D			B
Science	1,251	27.3%	1,918	14.7%	3,169	19.7%	18	16.7%	31,820	30.3%	B			B
Social Studies	1,249	18.7%	1,916	10.7%	3,165	13.8%	18	27.8%	31,760	23.2%	B			A B

Note: Results are based on two-sided tests assuming equal variances with significance level 0.05. For each significant pair, the key of the smaller category appears under the category with larger mean. Tests are adjusted for all pairwise comparisons using the Bonferroni correction.

Table 36. ESL and Non-ESL Student Outcome Profiles: Grade 9 Cohort

	ESL Status										Significant Differences			
	ESL 301		ESL 303		301 or 303		ESL 302		Non- ESL Status		301	303	302	Non-ESL
	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	(A)	(B)	(C)	(D)
Maintained Enrolment to 2003/04 (Grade 9's 03/04 only)														
Alberta System	2,361	86.9%	2,024	86.1%	4,385	86.5%	113	76.1%	44,941	91.3%	C	C		A B C
At Grade Level	2,361	77.6%	2,024	58.9%	4,385	69.0%	113	69.9%	44,941	81.0%	B		B	A B C
PAT Writing Status: PAT Completion Rates (Grade 9's 03/04 only)														
English	1,832	83.8%	1,192	69.6%	3,024	78.2%	79	86.1%	36,399	86.2%	B		B	A B
Math	1,832	86.2%	1,192	68.8%	3,024	79.4%	79	84.8%	36,399	86.0%	B		B	B
Science	1,832	85.1%	1,192	68.5%	3,024	78.5%	79	84.8%	36,399	86.8%	B		B	B
Social Studies	1,832	85.6%	1,192	69.3%	3,024	79.2%	79	84.8%	36,399	87.5%	B		B	B
PAT Achievement Scores: Writers Only (Grade 9's 03/04 only)														
English	1,536	64.29	830	58.51	2,366	62.26	68	66.43	31,380	67.46	B		B	A B
Math	1,580	71.74	820	59.94	2,400	67.71	67	69.76	31,299	67.46	B D		B	B
Science	1,559	67.94	816	57.45	2,375	64.33	67	66.78	31,589	67.26	B		B	B
Social Studies	1,568	65.79	826	55.94	2,394	62.39	67	66.46	31,833	66.31	B		B	B
PAT Achievement Scores: Writers Only - Deviation from Non-ESL Students (Grade 9's 03/04 only)														
English	1,536	-3.17	830	-8.94	2,366	-5.19	68	-1.03	31,380	0.00	B		B	A B
Math	1,580	4.28	820	-7.52	2,400	0.25	67	2.30	31,299	0.00	B D		B	B
Science	1,559	0.68	816	-9.81	2,375	-2.92	67	-0.47	31,589	0.00	B		B	B
Social Studies	1,568	-0.52	826	-10.37	2,394	-3.92	67	0.15	31,833	0.00	B		B	B
PAT Achievement Standard Acceptable and Excellence : Writers Only (Grade 9's 03/04 only)														
English	1,536	83.7%	830	73.5%	2,366	0.80	68	89.7%	31,380	89.0%	B		B	A B
Math	1,580	77.7%	820	60.6%	2,400	0.72	67	76.1%	31,299	74.6%	B D		B	B
Science	1,559	73.6%	816	55.0%	2,375	0.67	67	76.1%	31,589	75.2%	B		B	B
Social Studies	1,568	81.6%	826	65.5%	2,394	0.76	67	82.1%	31,833	82.7%	B		B	B
PAT Excellence Standard: Writers Only (Grade 9's 03/04 only)														
English	1,536	8.5%	830	2.2%	2,366	6.3%	68	10.3%	31,380	13.7%	B			A B
Math	1,580	32.2%	820	12.9%	2,400	25.6%	67	25.4%	31,299	20.2%	B D			B
Science	1,559	18.5%	816	6.5%	2,375	14.4%	67	10.4%	31,589	13.5%	B D			B
Social Studies	1,568	22.1%	826	9.8%	2,394	17.8%	67	23.9%	31,833	23.0%	B		B	B

Note: Results are based on two-sided tests assuming equal variances with significance level 0.05. For each significant pair, the key of the smaller category appears under the category with larger mean. Tests are adjusted for all pairwise comparisons using the Bonferroni correction.

Table 37. ESL and Non-ESL Student Outcome Profiles: Grade 12 Cohort

	ESL Status										Significant Differences			
	ESL 301		ESL 303		301 or 303		ESL 302		No ESL Status		301	303	302	Non-ESL
	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	(A)	(B)	(C)	(D)
Maintained Enrolment to 2003/04														
Alberta System	2,740	87.9%	1,418	64.7%	4,158	80.0%	248	52.8%	60,671	83.6%	B C D	C		B C
At Grade Level	2,740	83.9%	1,418	43.0%	4,158	70.0%	248	47.6%	60,671	76.6%	B C D			B C
Matriculation Course Completion Rate (Grade 12's 03/04 only)														
ELA 30_1	2,299	37.1%	610	32.3%	2,909	36.1%	118	39.8%	46,480	44.3%				A B
Pure Math 30	2,299	42.7%	610	27.4%	2,909	39.5%	118	33.9%	46,480	37.2%	B D			B
Biology 30	2,299	27.8%	610	26.9%	2,909	27.6%	118	35.6%	46,480	39.3%				A B
Chemistry 30	2,299	36.6%	610	23.6%	2,909	33.9%	118	31.4%	46,480	32.1%	B D			B
Physics 30	2,299	26.5%	610	15.9%	2,909	24.3%	118	25.4%	46,480	19.6%	B D			
Social Studies 30	2,299	31.2%	610	29.8%	2,909	30.9%	118	39.8%	46,480	47.7%				A B
Matriculation Course School Scores: Completers Only (Grade 12's 03/04 only)														
ELA 30_1	843	68.35	196	67.06	1,039	68.10	47	70.38	20,518	71.66				A B
Pure Math 30	977	72.60	167	70.66	1,144	72.32	40	71.15	17,284	70.52	D			
Biology 30	639	69.85	164	68.13	803	69.50	42	71.05	18,211	70.48				
Chemistry 30	839	69.73	144	70.97	983	69.91	37	69.14	14,918	70.34				
Physics 30	607	72.17	97	71.32	704	72.05	30	68.13	9,097	72.51				
Social Studies 30	717	68.99	182	68.38	899	68.87	47	67.23	22,127	70.43				A
Matriculation Course School Scores: Deviation from Non-ESL Students (Grade 12's 03/04 only)														
ELA 30_1	843	-3.31	196	-4.60	1,039	-3.55	47	-1.27	20,518	0.00				A B
Pure Math 30	977	2.08	167	0.14	1,144	1.80	40	0.63	17,284	0.00	D			
Biology 30	639	-0.62	164	-2.34	803	-0.98	42	0.57	18,211	0.00				
Chemistry 30	839	-0.61	144	0.63	983	-0.43	37	-1.20	14,918	0.00				
Physics 30	607	-0.34	97	-1.19	704	-0.46	30	-4.37	9,097	0.00				
Social Studies 30	717	-1.44	182	-2.05	899	-1.57	47	-3.20	22,127	0.00				A
DE Matriculation Course Achievement Scores: Completers only (Grade 12's 03/04 only)														
ELA 30_1	852	58.96	197	58.27	1,049	58.01	47	61.72	20,555	68.21				A B C
Pure Math 30	978	68.70	166	66.87	1,144	68.43	40	63.38	17,236	67.44				
Biology 30	638	61.99	163	59.18	801	61.42	42	65.00	18,166	65.05				A B
Chemistry 30	840	64.95	144	66.98	984	65.24	37	63.86	14,878	66.55				A
Physics 30	609	65.53	97	64.91	706	65.45	30	59.50	9,084	67.23				
Social Studies 30	717	63.17	182	59.59	899	62.45	47	63.55	22,092	66.13	B			A B
DE Matriculation Course Achievement Scores: Deviation from Non-ESL Students (Grade 12's 03/04 only)														
ELA 30_1	852	-9.25	197	-8.94	1,049	-9.19	47	-6.48	20,555	0.00				A B C
Pure Math 30	978	1.26	166	-0.56	1,144	0.99	40	-4.06	17,236	0.00				
Biology 30	638	-3.06	163	-5.87	801	-3.63	42	-0.05	18,166	0.00				A B
Chemistry 30	840	-1.80	144	0.43	984	-1.31	37	-2.69	14,878	0.00				A
Physics 30	609	-1.70	97	-2.33	706	-1.79	30	-7.73	9,084	0.00				
Social Studies 30	717	-2.95	182	-6.53	899	-3.68	47	-2.57	22,092	0.00	B			A B

Note: Results are based on two-sided tests assuming equal variances with significance level 0.05. For each significant pair, the key of the smaller category appears under the category with larger mean. Tests are adjusted for all pairwise comparisons using the Bonferroni correction.

Table 37. ESL and Non-ESL Student Outcome Profiles (Continued): Grade 12 Cohort

	ESL Status										Significant Differences			
	ESL 301		ESL 303		301 or 303		ESL 302		No ESL Status		301	303	302	Non-ESL
	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	N	Mean/%	(A)	(B)	(C)	(D)
Matriculation Course Total Scores: Deviation from Non-ESL Students (Grade 12's 03/04 only)														
ELA 30_1	841	64.17	196	63.74	1,037	64.09	47	66.77	20,491	70.29				A B
Pure Math 30	976	71.19	166	69.05	1,142	70.88	40	67.53	17,228	69.34	D			
Biology 30 k	637	66.28	163	64.05	800	65.83	42	68.33	18,174	68.11				A B
Chemistry 30	838	67.89	144	69.38	982	68.11	37	67.00	14,874	68.79				
Physics 30	607	69.24	97	68.51	704	69.13	30	64.10	9,085	70.19				
Social Studies 30	718	66.38	182	64.30	900	65.96	47	66.13	22,082	68.61				A B
Matriculation Course Total Scores: Deviation from Non-ESL Students (Grade 12's 03/04 only)														
ELA 30_1	841	-6.12	196	-6.54	1,037	-6.20	47	-3.52	20,491	0.00				A B
Pure Math 30	976	1.85	166	-0.28	1,142	1.54	40	-1.81	17,228	0.00	D			
Biology 30	637	-1.82	163	-4.06	800	-2.28	42	0.22	18,174	0.00				A B
Chemistry 30	838	-0.90	144	0.59	982	-0.68	37	-1.79	14,874	0.00				
Physics 30	607	-0.95	97	-1.68	704	-1.05	30	-6.09	9,085	0.00				
Social Studies 30	718	-2.22	182	-4.30	900	-2.64	47	-2.48	22,082	0.00				A B
Matriculation Standard Acceptable and Excellence : Completers Only (Grade 12's 03/04 only)														
ELA 30_1	854	92.4%	197	94.9%	1,051	92.9%	47	97.9%	20,600	98.4%			A	A B
Pure Math 30	981	90.1%	167	87.4%	1,148	89.7%	40	90.0%	17,310	91.8%				
Biology 30	640	85.5%	164	79.3%	804	84.2%	42	92.9%	18,249	91.8%			B	A B
Chemistry 30	841	87.9%	144	91.7%	985	88.4%	37	94.6%	14,938	92.5%				A
Physics 30	609	88.7%	97	89.7%	706	88.8%	30	83.3%	9,106	93.1%				A
Social Studies 30	718	94.0%	182	93.4%	900	93.9%	47	95.7%	22,157	96.2%				A
Matriculation Standard Excellence : Completers Only (Grade 12's 03/04 only)														
ELA 30_1	854	10.8%	197	10.2%	1,051	10.7%	47	17.0%	20,600	21.8%				A B
Pure Math 30	981	35.4%	167	29.3%	1,148	34.5%	40	30.0%	17,310	29.3%	D			
Biology 30	640	23.3%	164	26.2%	804	23.9%	42	33.3%	18,249	24.9%				
Chemistry 30	841	28.4%	144	34.0%	985	29.2%	37	29.7%	14,938	26.0%				
Physics 30	609	30.9%	97	26.8%	706	30.3%	30	26.7%	9,106	29.8%				
Social Studies 30	718	16.0%	182	13.7%	900	15.6%	47	23.4%	22,157	22.2%				A B

Note: Results are based on two-sided tests assuming equal variances with significance level 0.05. For each significant pair, the key of the smaller category appears under the category with larger mean. Tests are adjusted for all pairwise comparisons using the Bonferroni correction.

Kindergarten to Grade 12 English as a Second Language Literature Review

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LITERATURE REVIEW

PURPOSE

The purpose of this review was to examine the current literature (1995-2005) in five thematic areas. This included an examination of the predictors of full English as a second language (ESL) student achievement, an examination of the evidence regarding the effectiveness of various program delivery models, an examination of evidence and best practice suggestions for various instructional methods, a review of various dimensions of school leadership practices for creating an optimal ESL environment, and a review of best practice recommendations in diagnostics and assessment for ESL students.

SEARCH STRATEGY

To locate relevant publications ERIC, PsychInfo, LLBA, and Sociological Abstracts were searched. Keywords defining the population (English as a second language, ESL, limited English Proficient, LEP, non-English speaking, bilingual, linguistic minorities, immigrants, newcomers) were combined with keywords describing skill acquisition (e.g., reading, literacy, language acquisition, second language learning, communication), performance (e.g., achievement, drop-out, performance), teaching methods (e.g., teaching methods, instructional methods, teaching activities), specific teaching approaches (e.g., integrated language, corrective feedback, balanced literacy), models of instruction (e.g., models, pull-out, sheltered, immersion, transition), assessment (e.g., assessment, diagnostic, proficiency) and leadership (e.g., leadership, principal, school practice, best practice). The reference lists of relevant retrieved documents were also cross-referenced for additional publications. This review is limited to published and grey literature produced between 1995 and 2005.

NOTE: For the purposes of this review the following abbreviations are used:
L1 – First Language
L2 – Second Language

PREDICTORS OF ESL ACHIEVEMENT

For the purpose of this review, achievement was operationalized to include both academic achievement as assessed in schools or through jurisdictional achievement testing, and school drop-out rates. Recent studies indicate that ESL students attain median achievement levels at between the 12th and 45th percentile depending on the model of instruction (Thomas and Collier, 2002) but face high-school drop-out rates that far exceed the average of non-ESL students (Derwing et al., 1999; Fashola, Slavin, & Calderon, 1997; Watt & Roessingh, 2001). Similar findings related to the underachievement of L2 ESL students are reported in countries such as Sweden (Westin, 2003) and the United States (e.g., Gunderson & Clarke, 1998; Wayne & Collier, 2002).

The following predictors of success and achievement for ESL students have been identified in the literature.

Proficiency in First Language

A comprehensive meta-analytic review of the literature indicates that proficiency in first language is a strong predictor of academic success in L2 and in L2 language acquisition[21]. These findings are confirmed by others as well (August & Hakuta, 1997, Ernst-Slavit, 1998; Thomas & Collier, 1997). It is thought that academic skills, literacy development, concept formation, subject knowledge, and learning strategies developed in the first language all transfer to the second language (Collier, 1995). There is a growing body of evidence supporting cross-language transfer of phonological awareness (August et al., 2001; Cisero & Royer, 1995; Gottardo, Yan, Siegel, & Wade-Wolley, 2001; Lindsey, Manis, & Bailey; 2003) reading errors and fluency (August et al, 2001; DaFontoura & Siegel, 2005; Geva, Wade-Wolley, & Shaney, 1997), reading comprehension (Jimenez Gonzalez & Haro Garcia, 1996), letter and word knowledge (Lindsey et al., 2003), print concepts (Lindsey et al., 2003), and sentence memory (Lindsey et al., 2003).

It has also been suggested that the acquisition of the first language is associated with ethnic self-identification which, in turn, may contribute to academic success (Bankston & Zhou, 1995).

Proficiency in Second Language

In examining educational achievement, it has been found that student's English proficiency at point of entry is a strong predictor of high school drop-out rates (Watt & Roessingh, 1994a, 1994b, 2001). Research also indicates that those with limited proficiency in English are at a greater risk of drop-out than mainstream English students who are in turn at greater risk of drop out than fully bilingual students (Rumbaut 1995; Bankston & Zhou, 1995; Wayne & Collier, 2002). Watt and Roessingh (2001) describe the successful high-school ESL student as having a good educational background and having studied English prior to arrival in high school.

Amount of ESL Instruction

No studies were identified that have directly examined the relationship between amount of ESL instruction and academic achievement of L2 learners. Available research focused instead on hours of instruction required for L1 English speakers to obtain a certain level of proficiency in another language. Archibald et al., (2004) reporting on recommendations put out by the Foreign Service Institute, report that the average learner (whose first language is English) requires approximately 240 hours of instruction for languages such as French, Italian and Spanish and up to 720 hours for languages such as Chinese, Japanese and Korean to achieve an intermediate-high proficiency level. Over a three year period, assuming a 40-week school period, this corresponds to between 1.5 to 4.5 hours of instruction per week (60 – 180 hours per year). An approximate doubling of these amounts would be required to achieve advanced levels of proficiency. The variability in recommended instruction time is related to linguistic distance, that is, the difference between L1 and L2 in terms of alphabet, form, syntax and grammatical structure (Walqui, 2000b).

[21] An extensive review of this early literature is provided by Zhou (1997).

It has been estimated that students with limited English language proficiency need two years of ESL education to develop interpersonal communication skills and five to seven years to develop academic language proficiency (Collier & Thomas, 1999; Roessingh, 2000).

Evidence also suggests that more intense distribution of instructional hours (e.g., 80 minutes a day for five months versus 40 minutes a day for 10 months) may lead to greater reading proficiency in French (Lapkin et al., 1998).

Past Performance

Research indicates that past academic achievement in L2 is the single most important factor in predicting current scholastic performance in L2 (Hardwick & Frideres, 2004). The authors suggest that when students first enter a school they must have access to expertise and teaching skills that allow them to achieve early success--most important for immigrant youth when they first enter the Canadian school system.

Parental Involvement

Parental involvement has been found to be an important predictor of educational achievement in the general population (Hardwick & Frideres, 2004). While research indicates a great deal of variability in familial and community support for recent immigrants (Salili & Hoosain, 2001), Hardwick and Frideres suggest that programs designed to involve immigrant parents in their children's school activities and educational programs are very important to support their academic achievement.

Resources/Funding

Though literature directly linking ESL resource and funding distribution to academic success was not identified, some inferences can be drawn. Watt and Roessingh (2001) found that while provincial funding cuts did not significantly affect high school dropout rates, they did appear to have an impact on drop-out trajectories for intermediate ESL students (e.g., they dropped out from the system earlier after the funding cuts than they had before the cuts).

Individual Differences

The literature indicates that individual difference variables such as attitude and motivation are important in the acquisition of second language proficiency (Clement & Gardner, 2001). It has been found that attitudes about a particular language (Tremblay & Gardner, 1995; Noels, Clement, & Pelletier, 1999; Gardner, Tremblay, & Masgoret, 1997) and self-confidence (Tremblay & Gardner, 1995) are important pre-cursers to motivation to learn (Tremblay & Gardner, 1995; Noels, Clement, & Pelletier, 1999; Gardner, Tremblay, & Masgoret, 1997) and that this motivation is, in turn, an important predictor of success (Tremblay & Gardner, 1995; Noels, Clement, & Pelletier, 1999; Gardner, Tremblay, & Masgoret, 1997). Experiencing success is found to further influence feelings of self-confidence (Noels, Clement, & Pelletier, 1999; Gardner, Tremblay, & Masgoret, 1997).

Age at Time of Arrival / Length of Residence

Review of the literature in the early 1990's indicated that older children learn a new language more quickly, but that over the long run younger children obtain higher levels of proficiency and academic achievement (Klesmer, 1993). More recent research, however,

suggests that length of residence rather than age of arrival is a more important variable to consider because the age effects assume an underlying developmental model that is extremely difficult to substantiate in applied settings, whereas length of residence is based on an exposure model that is more readily testable (Fledge & Liu, 2001). In applying stringent statistical controls, it is found that length of residence is predictive of the acquisition of a second language but is likely moderated by the amount of exposure to the second language (Fledge & Liu, 2001; Fledge,Yeni-Komshian, & Liu, 1999).

Socioeconomic Status

Thomas and Collier (2002) have found that socioeconomic status influences from 3% to 6% of language minority students' achievement as measured by standardized tests. In addition, socioeconomic status is found to be predictive of the rate of acquisition of the English language by ESL students (Bunch, Abram, Lotan, and Valdes, 2001).

Previous Schooling

Years of previous schooling in L1 is found to be the most predictive variable of academic success among ESL students regardless of L1 language, country of origin, socioeconomic status and other demographic variables (Collier, 1995). It has been reported that in U.S. schools where all instruction is provided in English only, ESL learners with no previous schooling in their first language take 7 to 10 years or more to reach age and grade level norms of their English speaking peers (Collier, 1995). Those with 2 to 3 years of previous schooling take 5 to 7 years to catch up to their English-speaking peers.

In a nation-wide longitudinal study conducted in the USA, it was found that the amount of formal schooling in L1 was the strongest predictor of success in L2 (Thomas & Collier, 2002). Similar findings have been reported in British Columbia, Canada (Gunderson and Clark, 1998).

Teacher Credentials

Research suggests that teachers of ESL students need to have training and experience in language acquisition to ensure they can deliver educational programs appropriate to the developmental levels of ESL students (Berman, 1995). It has also been recommended that credentials of ESL teachers should include fluency in a second language (Berman, 1995; Coltrane 2003). Other research indicates that best practice for ESL instruction includes teachers who have knowledge of the cultural backgrounds of second language learners (August & Pease-Alvarez, 1996), and specialized knowledge of approaches to acquisition of a second language (August & Pease-Alvarez, 1996; Coltrane 2003; O'Byrne, 2001; Vilarreal, 1999). A recent meta-analysis of effective ESL programming identified teacher experience and expertise as a major factor of effective ESL programs (Roessingh, 2004).

Summary

The strongest predictors of academic success of ESL students include proficiency in first language, proficiency in second language, past academic achievement in L2 and the amount of formal schooling prior to ESL instruction. Apart from being strong predictors, the evidence supporting these relationships is also relatively strong. More modest evidence supports that the amount of ESL instruction time, parental involvement, age at time of arrival

or length of residence, individual differences (including motivational factors) and socioeconomic status are also important predictors of success of ESL students. In addition, there is also some evidence suggesting that teacher credentials and resource investment may also be related to academic achievement of ESL students.

PROGRAM DELIVERY MODELS

There are a number of different English as a Second Language (ESL) program delivery models described in the academic and grey literature. Schools may deliver more than one type of model to accommodate different students at different stages of language development. ESL programs serve students in three general stages of development: reception, transition, and integration (Vancouver School Board, 1996). These graduated stages categorize students according to their different needs for instructional support based on their proficiency in English.

Transitional models of ESL program delivery can be further situated along a continuum ranging from *inclusive* programming (the needs of language learners are met in a setting they share with mainstream English speaking peers) to *exclusive* programming (the needs of learners of English as a second language are met in a setting they share with other ESL peers). The choice of delivery model is likely influenced by both student need as well as contextual factors (e.g., number of ESL students in a school, availability of ESL supports etc.).

The following sections review different ESL program delivery models discussed in the more recent academic and grey literature. Models situated along the stages of development continuum are used as major organizers. Models described along the inclusive-exclusive continuum are described within the context of transitional models.

Newcomer Programs

Newcomer programs are relatively short-term school programs that assist non-English speaking students in their introduction and transition to the English language. These programs are most appropriate for students with little or no English (reception stage), students that are older than their grade level peers, students at risk of dropping out of school, and/or for those whose needs are greater than ESL programs can provide (Short, 1998). In some instances an entire school may be dedicated exclusively to newcomers (Feinberg, 2000) and typically instruction is offered in both the students' first language and English (Short, 1998). These programs can last from weeks to months (Ernst-Slavit et al., 2002; Short, 1998) and are often located in designated schools within a jurisdiction. After completion of the program students are placed in regular ESL language support and academic programs in their home schools (Short, 1998).

There are very few studies that have evaluated the effectiveness of newcomer programs (Short, 2002). Of the two studies located, one provided a more descriptive account of what a well-planned program should look like (Olsen, Jaramillo, McCall-Perez, & White, 1999), while the other presented some evidence of student language and academic growth but no assessment of the effectiveness of the model in comparison to other support models (Short, 2002). Generally speaking, proponents of the newcomer program model suggest that well-implemented newcomer programs should focus on English language attainment and

integration of recently immigrated or refugee students into mainstream schools and society (Feinberg, 2000; Hertzberg, 1998).

Transition Programs

Transition programs are commonly viewed as a staged approach from sheltered to inclusive/integrated programs. ESL teachers or aides typically deliver transition programs with varying involvement of mainstream teachers as emphasis shifts from second language development to more content-based mainstream class material (O'Byrne, 2001). Transitional program types include sheltered programs, pull-out programs, adjunct programs and inclusive programs. Supporters of sheltered programs argue that programs specifically directed to ESL students better mobilize resources and address learner needs while supporters of inclusive programs argue that immediate access to the mainstream classroom setting is critical for learning L2 (deJong, 1995). Others suggest that the transition from sheltered approaches to integrated classes should be based on language proficiency and that the shift from sheltered to integrated classrooms should be gradual, and that even fully - integrated ESL students still require after-school support (e.g., tutoring) to ensure their academic success (Nelson, 1996; McLaughlin & McCleod, 1996).

Transition programs can vary greatly from a modified English course for students who have already graduated from the school's ESL program to help them transition to a mainstream English class (O'Byrne, 2001), to programs that begin with 90% instruction in L1 and move to 100% instruction in L2 over a number of years (Thomas & Collier, 2002). Given this variety in transitional programming it is difficult to draw conclusions regarding the effectiveness of this model overall. There is evidence, however, that transitional programs are more effective than fully-integrated programs (Thomas & Collier, 2002). For example, high school English language learners immersed directly into the English mainstream show much higher drop- out rates than those that started with 10% L2 and transitioned to 100% L2 over a number of years (Thomas & Collier, 2002). In addition, these transition students reached median achievement levels on standardized tests at the 45th percentile compared to the 12th percentile for fully- integrated students (Thomas & Collier, 2002).

Sheltered Programs

Sheltered (self-contained) programs are taught by ESL teachers and consist exclusively of ESL students. A sheltered ESL program is typically directed at beginner ESL students and provides students with focused English language instruction in a comfortable environment. Sheltered programs with small classes better accommodate the heterogeneity of the students' backgrounds and alleviate the isolation and frustration that newcomers can experience (Curtis, 1995) while increasing English proficiency (British Columbia Ministry of Education, 1999). Although timetabling is difficult with a half day program (especially in schools with rotating timetables), it allows students to interact with English speaking peers at school more than a full day program allows (British Columbia Ministry of Education, 1999; Curtis, 1995).

Pull-out Programs

A pull-out program refers to students attending mainstream classes but who are pulled-out to receive dedicated ESL support. Alternatively, in secondary schools, students are given blocks of ESL time in place of content courses. Pull-out classes can be taught by ESL teachers based in a specific school or itinerant teachers who travel among schools bringing their own materials with them (British Columbia Ministry of Education, 1999). Pull-out

classes are thought to better accommodate beginner and low-intermediate ESL students, especially in schools where there are few ESL students (Duke, 2001). The benefit of the pull-out approach is that it provides concentrated instruction based on student need. As well, small class sizes allow greater instructional support and more opportunities for students to practice speaking English than they would be able to in mainstream classes (Duke, 2001).

Adjunct Programs

An adjunct program model links language instruction in English courses with content courses in order to allow ESL students to learn academic content while learning appropriate language and study skills (Ernst-Slavit et al, 2002). The content area is taught by a teacher with expertise in subject areas, while the adjunct course focuses on linking content with English language instruction. This combination of linked class content requires interdisciplinary collaboration between mainstream and ESL teachers. Adjunct programming has been found to be successful in a variety of settings (Roessingh, 1999; Seaman, 2000; Villarreal, 1999).

Inclusive Programs

In an inclusive program (also called in-class), students learn curriculum content while they learn English. ESL teachers or teacher aides work with ESL students in the regular classroom setting, but it is the classroom teachers who do the modification of class work for the ESL students. Collaboration among ESL and mainstream teachers is essential (British Columbia Ministry of Education, 1999) to ensure clarity and coordination of teaching, assessment and record keeping roles (Edmonton Catholic Schools, 2003). This type of program is recommended in elementary classrooms to allow ESL students to participate in all regular classroom activities and in secondary classrooms to allow ESL students to take a wider variety of courses than they would if they were pulled out of regular programming (British Columbia Ministry of Education, 1999; Edmonton Catholic Schools, 2003).

Comparison of Transitional Programs

In general, research indicates that models which foster collaboration between ESL and mainstream teachers (adjunct and inclusive models) have a greater positive effect on immigrant student achievement than pull-out or isolation (sheltered) programs (Thomas & Collier 1997; Collier & Thomas, 1999; Seaman, 2000; Villarreal, 1999). Thomas and Collier (2002) found that the highest quality ESL content instructional approaches can close about half of the achievement gap between mainstream and ESL students. High quality programs are described as well implemented, non-segregated programs that are sustained for five to six years (Thomas & Collier, 2002).

Integrated Programs/ Mainstreaming

Integrated programs (also referred to as mainstream programs) place ESL students into mainstream content-based classes. Depending on availability, students enrolled in integrated programs may also receive ESL support outside the classroom but they do not receive specialized ESL support in the classroom apart from what a mainstream teacher can provide.

As discussed previously, there is evidence to suggest that early and full integration in mainstream classes can be detrimental to ESL student achievement. In addition, there is evidence to suggest that accelerated integration into academic mainstream may lead intermediate level ESL students to drop out of high school sooner than those in sheltered

programs (Watt & Roessingh, 2001). It is generally accepted that integrated programming is best for students' whose English proficiency, concept development, and cultural awareness is at a more advanced level (Alberta Learning, 1996; British Columbia Ministry of Education, 1999). Effective integrated classes make educational opportunities available to all students, function effectively through student involvement and cooperative learning, and consider the language needs of all the students (Korkatsch-Groszko,1998).

Summary

Ideally, ESL programming helps students in both their English language development and in subject matter content.

Evidence suggests that models that focus more on English language development rather than subject matter content are most beneficial for students with very limited L2 proficiency and that these programs should be relatively brief, that is, for a period of weeks to several months at most. For those whose proficiency in L2 is at beginner to intermediate L2 levels, evidence is more supportive of transitional models, in particular those models that reflect close collaboration between ESL and mainstream teachers and integration of language and content instruction. These transitional programs should be sustained over a longer term (five years or more). Full integration of ESL students into mainstream classes appears most appropriate for those ESL students with advanced levels of proficiency in L2. After- school support even for these ESL students, however, is still recommended.

TEACHING METHODS

The literature is replete with recommendations on instructional methods for ESL learners. Many approaches are the same as those recommended for non-ESL early learners of English. Recent research demonstrating the effectiveness of various approaches for second language learners is cited wherever possible.

Integrated Language and Content Based Teaching

The teaching of a second language can be described along a continuum of approaches from content-based where subject matter content (e.g., math, science, social studies) is the primary focus of instruction to language-based where language structure is the primary focus of instruction (Met, 1998). Typically, research on immersion programs (content-based) indicates that content mastery is not adversely affected by instruction in L2 (Pelletier, 1998; Turnbull et al., 2001; Turnbull et al., 2003; de Jabrun, 1997)[22]. Besides studies demonstrating the effectiveness of content-based teaching strategies, research also indicates that students require focused attention on the grammatical and structural properties of L2 to ensure linguistic accuracy (O'Byrne, 2001; Short, 1997; Swain, 1996). Currently, it is widely recognized that mainstream teachers in integrated classrooms need to address both language learning as well as content learning as an integrated approach (e.g., Alberta Learning, 1996, 2002; Korkatsch-Grosko, 1998; Pica, 2000; Swain, 1996; Watt et al., 1996).

[22] See, however, Marsh et al., (2000) for an exception with respect to examining late English immersion students in Hong Kong.

Corrective Feedback

Second language learners can be exposed to both positive evidence and negative feedback on their use of language. Positive feedback provides learners with models of what is acceptable while negative feedback provides learners with information about what is not acceptable (Long, 1996). Research on corrective feedback for second language learners indicates that corrective feedback may play a role in stimulating recognition of gaps by the learners between their outputs and target language (Kim, 2004). Additional evidence is required, however, to clarify how and to what extent other factors such as proficiency, L1, age, linguistic features and task effects play a role (Kim, 2004).

It is suggested that in the early stages of language acquisition, errors can be corrected in a "sensitive" way but that as English is acquired direct correction can hinder students' efforts and discourage the use of L2 (Ernst-Slavit et al., 2002). Instead, it is recommended that corrective feedback be provided through modeling. Supportive evidence of corrective feedback is also reflected in the mainstream instructional literature (Marzano, 1998) where teachers are identified as having the responsibility of providing feedback so students can internalize correct usage of language (Marzano, 1998). Alberta Learning (1996) provides guidance on using corrective feedback in its *English as a Second Language: Elementary Guide to Implementation*.

Interaction / Cooperative Learning

Highly interactive classes that emphasize problem solving through thematic experience provide the social setting for language acquisition and academic development (Thomas & Collier, 1997). Cooperative learning has been found to be effective for promoting the academic achievement, language acquisition, and social development of English as a second language learners (Calderon & Slavin, 1999; Ovando & Collier, 1998). Recent works also cite many earlier studies supporting the effectiveness of collaborative interaction on the language acquisition process (e.g., Thomas & Collier, 1997; Roessingh, 2004; Swain 2001). It is emphasized that a collaborative classroom is more than a successful workgroup but one in which students recognize and use one another as resources to build a collective body of knowledge and develop skills to put knowledge into practice (Savage, 1996). Recommended best practice is that classrooms be organized for collaboration and interaction of ESL students suggests with native English-speakers (Alberta Learning, 1996, 2002; Alcala, 2000; deJong, 1995; Korkatsch-Grosko,1998; McLeod, 1996; Villarreal, 1999; Walqui, 2000a, 2000c).

More recent literature supports that a similar collaborative approach should occur between teacher and ESL student. Effective interactions in terms of L2 development are reported when both teachers and students are active participants in the construction of language and curriculum knowledge (Gibbons, 2003).

Balanced Literacy

The balanced literacy approach (Pressley, 1998) combines the language-rich activities associated with whole language, with explicit teaching of skills needed to decode and form words and sentences (Calgary Board of Education, 2004). This approach blends holistic literacy opportunities like reading literature and composing with skills instruction in phonics and comprehension strategies (Pressley, Roehrig, Raphael, & Dolezal, 2002). There are many studies supporting this approach with English monolingual early learners (see

Pressley et al, 2002 for a review). A recent study of ESL students in British Columbia indicated that a balanced early literacy program is as effective for ESL learners as it is for English speakers in the early grades (Lesaux & Siegel, 2003). Cummins (2003) states that when it comes to English language learners, *"Virtually all researchers endorse some variant of a 'balanced' view of reading instruction that incorporates varying amounts of explicit phonics instruction together with an emphasis on extensive reading as students progress through the grades (p. 10)."*

Basic Interpersonal Communication Skills (BICS)

Basic Interpersonal Communication Skills (BICS) may be acquired by learners within approximately two years of arrival (Roessingh & Kover 2002). It is recognized that these basic skills are required for early communicative competence but that academic language proficiency is required for academic success (Swain 1996, Cummins, 1999). With communicative approaches the goal is for the learner to develop communicative competence in L2 (Lessard-Clouston, 1997). It has been suggested that the development of oral communication skills should precede English reading instruction unless a reading foundation has already been established in L1 (International Association resolution (1998) cited in August, 2003; Snow, 1998). Other evidence, however, suggests that oral communication skills and literacy skills can develop concurrently (Geva & Petrulis-Wright, 1999 as cited in August 2003; Fitzgerald & Noblit, 1999), and that reading instruction enhances oral communication development (Anderson & Roit, 1996).

Cognitive Academic Language Proficiency

Models of ESL instruction that are based on the Cognitive Academic Language Proficiency (CALP) approach are widely accepted as best practice (e.g., Alberta Learning, 1996; Calgary Board of Education, 2004; Collier, 1995; Cummins, 1999). CALP-level communication skills are much more cognitively demanding than BICS and require understanding of metaphor and symbolism and may take as long as seven years to master (Roessingh & Kover 2002).

To promote an ESL student's academic language proficiency, research supports instruction that is cognitively challenging, based on academic content and focused on the development of critical language awareness (Cummins, 1999). Such a Cognitive Academic Language Learning Approach (CALLA) integrates instruction from content curriculum in high priority content areas, academic language development based on content, and explicit instruction in learning strategies (Chamot & O'Malley, 1996). In 1996, Chamot and O'Malley recognized that there was limited information about the effects of CALLA programs on student achievement but did cite some program evaluation studies which indicated promising results. Unfortunately, there is still a dearth of evidence supporting CALLA. Montes (2002), in comparing classrooms that incorporated CALLA versus those that did not in the same South Texas Schools, found that though students in both types of classrooms improved, more improvement in academic performance was found among CALLA students.

Comprehensible Input

Comprehensible Input strategies ensure that a student understands a teacher's written or oral communication. Strategies include having students provide a behavioural response to an oral or written request, selecting among alternative responses, drawing a picture of what was heard, answering questions, condensing information, or providing endings to a story,

message rephrasing among others (Alberta Learning, 1996). The use of the comprehensible input strategy is somewhat contentious and research indicates mixed results of the effectiveness of this approach (Leow, 1997).

Scaffolding

Scaffolding refers to "providing contextual supports for meaning through the use of simplified language, teacher modeling, visuals and graphics, cooperative learning and hands-on learning" (Ovando, Collier, & Combs, 2003). The teacher of second language learners facilitates this support and as students become more proficient, the scaffold is gradually removed (Hammond, 2001). Scaffolds use repeating language and discourse patterns and help ESL students understand how ideas are organized and presented to enhance understanding and communication of ideas (Alberta Learning, 1996). Research indicates that the interaction of discourse and content-based activities leads to higher levels of thinking and understanding but only when scaffolding is used as a discourse support (Wellman, 2002). Research also indicates that ESL students benefit from this approach (Gibbons 2003; Mohan & Beckett, 2001). Observational studies, however, indicate that teachers do not always provide effective scaffolds for ESL students (e.g., Arreaga-Mayer & Perdermo-Rivera, 1996; Gersten, 1996).

Mentors

Alberta Learning (1996, 2002) recognizes the importance of buddying to learn daily classroom routines and peer tutors to provide academic support to ESL students. Others have also recommended the peer tutoring approach as a best practice approach (e.g., Cohen 2003; Korkatsch-Grosko, 1998; Shore, 2004).

An examination of the autobiographical narratives of 40 former ESL students indicates that shyness and fear are major barriers to academic participation early in the adjustment process for newcomers (Watt, Roessingh &Bosetti, 1996). Researchers suggest that linking newcomers to an L1 speaking "buddy" or mentor may significantly alleviate the initial feelings of isolation which is a key contributor to early withdrawal from high school (Watt, Roessingh & Bosetti, 1996). It has also been demonstrated that integrating younger-arriving ESL learners with older-arriving ESL learners enhances L1 development and facilitates language development in L2 (Roessingh & Kover, 2002). Additional research indicates that pairing English language learners with skilled readers of English helps ESL students read more fluently and accurately (Li & Nes, 2001).

Language Experience Approach

The Language Experience Approach (LEA) is recognized as a best practice approach (Korkatsch-Grosko, 1998) particularly for younger learners and those at beginner ESL levels (Drucker, 2003). LEA involves having students tell a story of an experience they have had while the teacher records the story (Rigg 1981 as cited in Drucker, 2003). It is believed that this strategy reduces the "cognitive load" of lessons by allowing students to draw on their prior knowledge and life experiences (Miller & Endo, 2004). LEA is a scaffolding strategy that allows students to progress from oral expression of English to reading and writing of English (Albert Learning, 1996). Beginner ESL students may be asked to draw and verbalize a story. They may then move to dictating a story co-authoring the story with the teacher. Through careful guidance by the teacher and progression in small increments, the student moves to the writing of their own stories and reading of stories written by others (Alberta

Learning, 1996). Research indicates that using LEA in an early childhood setting raises the metalinguistic awareness of students in dual language programs (Montague & Meza-Zaragosa, 2000).

First Language Support

A growing body of evidence suggests that first language support significantly impacts ESL student achievement levels and recommendations are often made to encouraging L1 use and development through L1 support (e.g., Watt et al., 1996; Bankston & Zhou 1995). ESL students schooled entirely in English do make dramatic gains in the early grades but then typically fall progressively behind the achievement levels of English students (Thomas & Collier, 1997). It has been suggested that early success often misleads teachers and administrators into assuming students will continue to make dramatic gains (Thomas & Collier, 1997).

Research indicates that early arrivers (five to seven year olds) would acquire English more rapidly if they were provided a minimum of two years of language instruction in L1 (Thomas & Collier, 1997). In addition, it has been found that schools with exemplary ESL student achievement results all used the student's primary language as a means of developing literary skills, a tool for developing content or both (Nelson, 1996).

An examination the relationship between L1 and L2 proficiency across 15 studies indicated that reading in the primary language promotes second-language literacy and that free reading in L1 makes a strong contribution to continued L1 development (Krashen, 2003).

Research supports that if language minority students arrive at a school with no proficiency in English they should, if possible, be taught how to read in their native language while acquiring proficiency in English (Krashen, 2003). While this level of support is not usually feasible, providing other supports to maintain a student's first language is recognized as best practice in several provincial jurisdictions (British Columbia Ministry of Education, 1999, Alberta Learning 1996, 2002). In Alberta Learning's *English as a Second Language Elementary Guide to Implementation* (1996) it is recommended that teachers ensure as much first language support as possible is available, promote positive attitudes toward all languages in the class, make the classroom multilingual through pictures and signs, encourage students to write in their own language, and assure parents that their children should continue to speak their first language at home. An overall respect for a student's first language and allowing students to use their first language is recognized as a best practice approach (e.g., August, 2004; Korkatsch-Grosko, 1998).

Phonemic Awareness

Phonemic awareness instruction allows the learner to attend to, isolate, and manipulate individual phonemes. This awareness supports the phoneme blending necessary for decoding words (Roberts & Neal, 2004). Phonemic awareness upon entry into kindergarten and first grade has been demonstrated to predict the acquisition of reading ability (Snider, 1997). An examination of the effectiveness of phonemic awareness instruction in five year old ESL learners indicated that compared to a control group, students who received instruction in this approach showed greater phonemic awareness, phonics knowledge, and scored higher on standardized tests of reading and writing one year later (Stuart, 1999). There is widespread expert agreement that phonemic awareness is an important component of the development of decoding skills and that explicit instruction in phonemic awareness

together with a significant focus on reading contributes to early reading comprehension skills (see Cummins, 2003).

Writing Workshop

In writing workshops students in the classroom work independently on self-selected pieces of writing. The teacher moves from student to student monitoring progress, offering suggestions, helping children write and rewrite their drafts. Typically, however, teachers of ESL students tend to view feedback as a passive process and focus on "fixing-up" a finished product rather than as a developmental process (Hyland, 2000). Research indicates that ESL writers require extensive communication about approaches to writing and feedback strategies and not just feedback based on writing problems (Hyland, 2000).

Modification

Using a modified approach teachers match the difficulty of a written text to the reading levels of learners. This is done through isolating sentence complexity, reducing the frequency of specialized vocabulary and amount of contextual support (Calgary Board of Education, 2005). Programs that group children according to reading level with a focus on language development at each level (Slaven & Madden 1999) and those that use visual and printed contextual information to provide explicit word meaning (Neuman & Koskinen, 1992) are found to be effective in improving word learning and increasing vocabulary knowledge for language minority students.

Comprehension Strategies

A major component of reading comprehension is vocabulary (August, 2004). Comprehension strategies include a wide range of approaches to ensure students are able understand written materials. Strategies can include SQR3 (Survey, Question, Read, Recite, Review) and other types of graphic organizers (Calgary Board of Education, 2004). Other strategies include providing background information before being exposed to text, encouraging pre-reading on a topic, introducing key vocabulary, and having students note parts of the text they do not comprehend.

Though no recent research was located that directly assessed the effectiveness of comprehension strategies specific to the ESL learners, research indicates that first grade vocabulary predicts more than 30% of reading comprehension variance in grade 11 learners whose first language is English (Cunningham & Stanovich, 1997). Various approaches have been found to improve vocabulary acquisition in L1 English learning contexts including computer use (Davidson, Elcock & Noyes, 1996), incidental exposure (Schwabenflugel, Stahl & McFall, 1997) repeated exposure (Senechal, 1997), pre-instruction (Brett, Rothlein, & Hurly, 1996) and direct instruction (Tomesen & Aarnouste, 1998). The use of these approaches and others for enhancing vocabulary comprehension are recognized as best practice approaches for all early language learners (e.g., National Reading Panel, 2000) and for ESL learners in particular (Hernandez, 2003; Perez & Torres-Guzman, 1996).

Realia (Real Life)

By presenting information through diverse media, realia helps to make English language input as comprehensible as possible. In a meta-analysis of instructional methods for English Language learners, Marzano, (1998) found that the realia approach is effective in early

levels of English proficiency, but that these methods should give way to more abstract approaches (e.g., comparison, metaphor and analogy) as English proficiency improves.

Total Physical Response (TPR)

Total Physical Response (TPR) reflects teaching language through physical (motor) activity (Richards & Rodgers, 1998, p 87). TPR includes comprehensible input and a focus on relevant content rather than grammar or form (Crawford, 2003). It is recognized as an effective method for reinforcing concepts and vocabulary (Gersten & Baker, 2000) and has been found to be most effective for L2 learners when it is applied maximally and in combination with storytelling and using student questions to introduce grammatical explanations (Skala, 2003).

Explicit Instruction

Explicit instruction incorporates modeling and identifies for students the strategies and skills used in the context of reading and writing. There are a number of empirical studies that have demonstrated that early elementary students at risk of reading failure benefit from explicit instruction (Castle, Riach, & Nicholson, 1994). Specific to the ESL population, a recent meta-analysis of over seventy studies indicated that explicit types of instruction in L2 are more effective than implicit types across a variety of targeted outcomes (Norris & Ortega, 2000). It has been found that explicit instruction plays a key role in language acquisition (Zhang, 1998) and enables students to internalize elements of linguistic structure and make active use of these in written text (LaPlante, 2000 as cited in Archibald et al., 2004). Explicit instruction techniques are recognized as best practice for all language learners (National Reading Panel, 2000) as well as L2 learners (Norris & Ortega, 2000).

Promoting Diversity

The environment in which a student learns has been described as being just as important as teaching approaches and strategies (Drucker, 2003). It has been suggested that the most important thing teachers can do to create a positive learning environment for ESL students is to respect rather than judge the English learners, their homes and communities (Meyer, 2000). Wherever possible students should see their history, literature, and cultural experiences reflected in the classroom (British Columbia Ministry of Education, 1999, Alberta Learning, 1996, 2002; Ernst-Slavit et al., 2002; Korkatsch-Grosko, 1998).

Other Specific Supports

Other supports recommended for ESL students in the classroom include:

- Offering instructions in print as well as verbally (Watt et al., 1996).
- Allowing ESL students to begin homework in class to ensure homework is understood (Watt et al., 1996); and
- Peer tutoring or homework groups (Watt et al., 1996).

Using Multiple Methods

Kubota (1998) warns that viewing current popular methods of ESL instruction as panaceas leads to neglecting the specific needs of students. It is widely recommended that teachers become flexible in using the various approaches so that they more are responsive to the

linguistic, cultural, and cognitive needs of individual students (e.g., August & Pease-Alvarez, 1996; Ernst-Slavit, Moore, & Maloney, 2002; Gersten, 1996; Kubota, 1998; Lake & Pappamihiel, 2003; Miller & Endo, 2004; Oxford, 1996).

Summary

All of the instructional methods described above have been recommended as best practice approaches though there is still some debate about the effectiveness of two of the approaches: corrective feedback and comprehensible input. Several instructional techniques are supported by research as beneficial when applied to ESL students. These include: integrated language and content- based teaching, balanced literacy, cognitive academic language proficiency, scaffolding, mentors, language experience approach, phonemic awareness, realia, total physical response and explicit instruction.

LEADERSHIP

Roessingh's (2004) meta-analysis of 12 major studies on effective ESL programs indicates that the school principal plays a crucial role in supporting staff development, promoting collaborative work, allocating internal resources to high need areas and inviting parents to play an active role in their child's education. These aspects of leadership as well other aspects identified in the recent literature are discussed below.

Family and Community Involvement

Encouraging family and community involvement is identified as an important component of school leadership in many jurisdictions (e.g., British Columbia Ministry of Education, 1999, 2004; Alberta Learning, 1996). Many researchers and scholars have identified the importance of involving parents of ESL students in their children's school activities (August & Pease-Alvarez, 1996; Boothe, 2000; Hardwick & Frideres, 2004; Rosberg, 1995; Villareal, 1999; Wei & Zhou, 2003). This includes ensuring that all school communication is accessible to language minority parents (August & Pease-Alvarez, 1996; Boothe, 2000), enhanced regular contact between teachers and language minority parents (August & Pease-Alvarez, 1996, Coltrane, 2003; Korkatsch-Grosko, 1998; Miller & Endo, 2004; Shore, 2004), and involving community members as volunteers (Boothe, 2000).

Opportunities for First Language Development

Encouraging and providing opportunities for L1 use is recognized as a key leadership strategy in many jurisdictions (e.g., Alberta Learning, 1996, 2002; British Columbia Ministry of Education, 1999; 2004; Donaldson, 2000). For some time authors have suggested that attitudes of public and school officials toward use of L1 should go beyond tolerance to encouragement (e.g., August & Pease-Alvarez, 1996). Primary language use has been described as a central pillar that supports literacy development across instructional approaches for English learners (Dalton, 1998). It has been recommended that schools actively promote clubs and activities that are aimed at strengthening skills in their ESL students first languages (August & Pease-Alvarez, 1996; Bankston & Zhou, 1995), that ESL students should be encouraged to use their first language whenever necessary (e.g., Nichols, Rupley, & Webb-Johnson, 2000; August & Pease-Alvarez, 1996) that L1 development at home or in the community be supported and encouraged (Miller & Endo,

2004; Rosberg, 1995; Shore, 2004), and if feasible, schools with large number of ethnic-group members offer instruction in L1 (Bankston & Zhou, 1995).

Support

ESL students in mainstream classrooms require structured support in the form of teaching assistants, aides, or volunteers to help them cope with the language demands of learning in the school context (Alberta Learning, 1996). It is also recommend that schools are flexible in their use of instructional time and expand the time when needed (August & Pease-Alvarez, 1996), and that continued ESL support in the form of monitoring and resource-room support programs is provided even after students are considered fully integrated (Watt et al., 1996). Schools are expected to facilitate access to resources that support effective implementation of ESL services in many jurisdictions (e.g., Alberta Learning, 1996; British Columbia Ministry of Education, 2004; ESL Task Force, 2000).

Collaboration

Rather than using a single model for all students, it is a common recommendation in the literature that teachers adjust curriculum instruction to meet the needs of individual students (e.g., McLaughlin & McCleod, 1996). In order to accomplish this, a collaborative team approach among mainstream teachers of ESL students, ESL teachers, and the guidance department is recommended (Roessingh & Kover, 2002; O' Byrne, 2001). Use of parent and community resources to provide L1 support is also recommended (Coltrane, 2003). (This collaborative process is identified as an important component of school leadership in many jurisdictions (e.g., Alberta Learning, 1996, 2002; British Columbia Ministry of Education, 2004; ESL Task Force, 2000).

Reception

A well-planned orientation of ESL students and their parents or guardians is viewed as a very important step in creating a positive learning environment (Alberta Learning, 1996). It is recommended that members of the community, multicultural and home liaison workers, bilingual students, teachers and members of the Parent's Advisory Council be involved in welcoming the new ESL families (Alberta Learning, 1996). Former language-minority students indicate that a welcoming environment is critical to the success of language-minority students (Thompson, 2000).

Diversity Sensitivity

Researchers have identified a school culture that is supportive of diversity as an important characteristic of schools with effective ESL or bilingual programs (August & Pease-Alvarez, 1996). Aspects of diversity sensitivity include fostering a respectful environment, valuing native languages and cultures, and challenging prejudice and discrimination (August & Pease-Alvarez, 1996; Boothe, 2000; Villarreal, 1999). Promoting an environment that values diversity, bridges culture, and works to eliminate discrimination and racism are identified as important elements of school leadership (e.g., Alberta Learning, 1996; British Columbia Ministry of Education, 1999, 2004)

Professional Development

Researchers have identified professional development opportunities for teachers as necessary to meet the demands of working with ESL students (e.g., August & Pease-Alvarez, 1996; MacKay, 2002). These opportunities should encourage reflection on attitudes about language and culture (August & Pease-Alvarez, 1996) and explicit instruction on how teachers can address the needs of language minority students (August & Pease-Alvarez, 1996).

A recent review indicated that a characteristic of almost all effective ESL programs was the provision of extensive professional development and follow-up assistance to teachers (Fashola et al., 1997). It has also been found that the more pre-service and in-service teachers are exposed to foreign language courses, courses in multicultural education, ESL training, and work with culturally diverse ESL students, the more positive teachers are about working with ESL students (Youngs & Youngs, 2001).

Summary

School leadership that promotes and facilitates ESL family involvement in school activities supports cultural diversity, promotes interaction and involvement with community- based services, ensures an environment for first language support, develops an orientation process for ESL newcomer students and their families, and provides access to range of ESL supports are recognized as best practices to ensure a positive and supportive environment for ESL students. In addition, it is recognized that staff require professional development, follow-up assistance, and collaborative work opportunities to deliver effective ESL programming.

DIAGNOSIS AND ASSESSMENT

Importance of Assessment

English language proficiency at entry into the school system is viewed as an important benchmark for educational planning and the development of an English Language Program (ELP) at the school level (Cummins & Watt, 1997). While it is recognized that no assessment process is perfect, it is also recognized that it is extremely important that common assessments be used within a school or jurisdiction so that assessors can be trained to conduct assessments in a consistent manner (Cummins & Watt, 1997). It is further recognized that assessments of ESL students should include standardized reporting methods (Cummins & Watt, 1997).

There is general agreement that assessment should include both content knowledge and language proficiency (August & Pease-Alvarez, 1996, Cummins & Watt , 1997; Korkatsch-Grosko, 1998). Various authors recommend that proficiency levels should include assessment of vocabulary recall, conversational output, oral reading and written language ability (e.g., Cummins and Watt, 1997; Edmonton Catholic Schools, 2003; British Columbia Ministry of Education, 1999, Calgary Board of Education, 2004; Edmonton Catholic Schools, 2003; Calgary Board of Education, 2004). In addition, it has been suggested that efforts be made to assess students in their dominant language usually their first language (August & Pease-Alvarez, 1996; Hargett, 1998; Villarreal, 1999, McCollum, 1999).

Purpose of Assessment

Researchers recommend that the purpose of the assessment should be identified and that the appropriate assessment selected based on that purpose (Hargett, 1998; Madden & Taylor, 2001). For example, if the school needs to know if a student can participate in the oral language of a mainstream classroom, the assessment task should simulate the oral language used in that context. If the school needs to know if a student's academic skills are at or near grade level in the student's first language then an assessment in L1 using grade level standards is required (Hargett, 1998). Teachers should also communicate the purpose of assessment to students (August & Pease-Alvarez, 1996).

Training in Assessment

Research suggests that teachers tend to over-estimate English language competence of ESL students, particularly those who have acquired basic conversational skills (Harold, 1993). Because scoring on many language proficiency tests rely on the examiner's personal judgment in scoring, it is important that the scoring protocols and procedures are followed as rigorously as possible so to minimize bias (Hargett, 1998).

Teachers require instruction and resources to improve their assessment skills which should include an understanding of the purpose of proficiency assessments (August & Pease-Alvarez, 1996), an understanding of the implications of assessment results (Hargett, 1998) and accurate assessment (Boothe, 2000). It has also been recommended that whenever possible, teachers should include ESL specialists in the assessment process (Boothe, 2000; Hargett, 1998).

Multiple and Authentic Assessments

It is commonly recommended that assessments should make use of multiple measures in multiple contexts (Alcala, 2000; August & Pease-Alvarez, 1996; Hargett, 1998; Korkatsch-Grosko, 1998). Wintergerst (2003) and her colleagues suggest that multiple methods of language assessment are required given individual and cultural variations in learning style preferences. The systematic collection of student work measured against predetermined scoring criteria as is done with assessment portfolios (O'Malley & Valdez Pierce, 1996) has been described as a best practice when it comes to ongoing assessment of ESL students (Gomez, 2000). As part of the multiple assessment strategy, authentic assessments are highly recommended in the literature (Hakuta, 2001; Mantero, 2002; O'Malley & Valdez Pierce, 1996). These assessments require students to demonstrate skills and competencies that realistically represent problems and situations likely to be encountered in daily life (O'Malley & Valdez Pierce, 1996).

Alternative Assessments

Many educators recognize that alternative assessments, such as those that can be easily incorporated into the daily activities of the classroom, are an important means of understanding an ESL student's academic and linguistic development (Hamayan, 1995; Tannenbaum, 1996). The main goal is to gather evidence on how students are completing school-based tasks (Huerta-Macais, 1995). Suggestions for alternative assessment include teachers incorporating continuous observation and collection of work samples (Alcala, 2000; Tannenbaum, 1996), and the use of nonverbal assessment strategies (Tannenbaum, 1996).

Sensitive Assessment Measures

Researchers recommend selecting proficiency assessment instruments that are sufficiently sensitive to measure student progress rather than placing them in broad classification categories (August 2004; Hargett, 1998). Hargett (1998) provides a review of several of the more commonly-used assessment instruments and methods available and discusses the strengths and limitations of the various tests and approaches. Some of these instruments include Language Assessment Scales, Oral (LAS-O); Language Assessment Scales, Reading and Writing; Woodcock-Munoz Language Survey; IDEA Oral Language Proficiency Tests (IPT); and Secondary Level English Proficiency (SLEP) Test.

Summary

Many of the recommendations related to assessment of ESL students revolve around three main themes, choosing an appropriate assessment, using a wide variety of assessment techniques, and ensuring consistency in using the assessment selected. When it comes to choosing appropriate assessments best practice recommendations include ensuring assessments of vocabulary recall, conversational output, oral reading, and written language ability. Assessments should represent problems likely encountered in real world settings. Observational assessment should be ongoing. Finally, it is recognized that many assessments rely on subjective interpretation and as a result training in assessment is required.

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